

Assessing residential satisfaction among low income households in multi-habited dwellings in selected low income communities in Accra

Irene Appeaning Addo

University of Ghana, Ghana

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Abstract

Multi-habitation is the predominant housing strategy adopted by low income households to address their housing needs in urban areas in Ghana. The recent housing policy draft in Ghana recommends multi-habitation as an urban low income housing strategy. However, a couple of researches indicate that households living in multi-habited houses are faced with a myriad of challenges. One such challenge is conflict over inadequate shared facilities. Using both quantitative and qualitative methods of data collection, this paper examines multi-habited households' residential satisfaction with a holistic approach where the characteristics of the dwelling unit, the social networks and neighbourhood facilities are all considered in accessing household satisfaction. Five low income communities in the Greater Accra Metropolitan Area were studied. The research found out that the dwelling characteristics have a negative influence on the residential satisfaction of the respondents. Households derived the most satisfaction from community support but were moderately satisfied with their neighbourhood characteristics. The significance of this finding on multi-habited housing development and planning in Ghana reflects in the design, location and maintenance of such dwellings.

Keywords

Accra, dwelling characteristics, Ghana, low income, multi-habited housing, neighbourhood characteristics, residential satisfaction, social networks

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Introduction

Globally, urban low income housing units are often described as inadequate, lacking the basic amenities and often found in poor neighbourhoods. These neighbourhoods are overcrowded and characterised with run-down facilities, poor quality buildings, poor environmental facilities and poor sanitation

(Addo, 2013; Arku, 2009; Yeboah, 2005).

They are often classified as slums and governments often target these neighbourhoods

Corresponding author:

Irene Appeaning Addo, Regional Institute for Population Studies, University of Ghana P.O. Box LG 96, Accra, P.O. Box AF 3229, Ghana.

Email: ireneappeaning@yahoo.com

for urban renewal programmes. Although these neighbourhood characteristics are not contested, residents' perception and use of these neighbourhoods may be contrary to what the policy-maker thinks. Research has shown that households staying in multi-habited houses in the low income communities exhibit very little residential mobility in their housing decisions (Addo, 2013; Ardayfio-Schandorf, 2012; Rain et al., 2011). Adriaanse (2007) suggests that over time people develop a sense of 'dwelling' or 'being in place' and that their habitual routines build up a cognitive awareness of the residential environment to the point that they become psychologically fused with it (p. 290).

This paper seeks to explore the residential satisfaction of multi-habited low income residents in Accra in terms of dwelling characteristics, social networks and neighbourhood characteristics. Multi-habitation is a situation where a number of related or unrelated households share a common compound and amenities. Given the housing deficit experienced in Ghana and currently estimated at 1.7 million units in 2014, the low income households often seek affordable accommodation from these multi-habited dwellings. The 2010 population and housing census estimates that about 51.5% of the dwelling units in Accra are multi-habited (Ghana Statistical Service (GSS), 2012). The government of Ghana seeks to address this housing deficit through the provision of multi-habited dwelling units or compound houses (MWRWH (Ministry of Water Resources, Works and Housing), 2009). It is imperative to understand the residential satisfaction experienced by households living in multi-habited dwellings to give a participatory approach in urban low income housing development (Ogu, 2002). According to Li and Wu (2013), there is a need to study these settlements from the residents' perspective since current studies have not paid adequate

attention to the feelings of inhabitants about their living places.

Studies on residential housing satisfaction in Ghana observed housing satisfaction as a composite of the physical and the social dynamics (Baiden et al., 2011; Sinai, 2001). Sinai (2001) studies on residential housing satisfaction in Kumasi observed housing satisfaction as a composite of the physical characteristics (number and size of occupied rooms, materials that the house was made from, availability of water and electricity, availability of cooking and bathing facilities, a veranda, type of toilet) and the social dynamics (number of households sharing cooking and bathing facilities). Baiden et al. (2011) also measured residential satisfaction in Accra conceptualising dimensions of housing to be the physical characteristics of the building (house type, housing condition) and the social dynamics within the house (in terms of the demand or control the household has, the meaning one attaches to where he or she lives and socio-demographic factors). The neighbourhood characteristics were not actually studied, however neighbourhood characteristics play a significant role in residential satisfaction and household mobility patterns (Rohe et al., 2013). Hence, this paper will measure residential satisfaction as a composite of the physical characteristics of the building in terms of the dwelling characteristics, the social dynamics and the neighbourhood characteristics.

Three objectives were set out for this paper. The first objective is to present the nature of multi-habitation in the study areas and the second objective is to measure the level of residential satisfaction among low income households in these study areas. The third objective is to identify the specific variables that influence residential satisfaction among multi-habited households. It is anticipated that findings from this research can inform Ghana's national housing policy as it seeks to adopt both compound and family

houses as a strategy to address urban low income housing needs. Second, it is anticipated that the findings will contribute to the discourse on residential satisfaction in low income multi-habited dwellings in Ghana and in other developing countries.

Multi-habited housing development in Ghana

With housing policies shifting away from direct public supply of affordable low income houses, individual households have filled the gap by building low income houses and cashing in on the limited supply of affordable housing in the urban centres. Petty landlordism is the provision of incrementally built affordable housing by individual developers in the informal sector targeting urban low income households. It is associated with urban low income landlords who, through this means, supplement their meagre urban incomes (Datta, 1995; Kumar, 1996). When small landlordism predominates, landlord and tenant have similar social-economic backgrounds and a quite cordial relationship. Owners prefer to advertise through word of mouth, and they often let out to kin and friends. Landlordism can be explained on the level of scale in terms of the number of rooms occupied by the landlord in a compound house and it takes the form of multi-habitation of households (Kumar, 1996). As the fortunes of urban low income households improve, they undertake housing projects including building additional rooms which are rented to other low income households seeking rental facilities (Aina, 1990; Kumar, 1996). Schlyter (2003) identified that low income groups extend their house space constructing 'illegal' out-buildings which are let out to lodgers as an income-generating venture. Verandas are enclosed and used as additional rooms.

Critics of petty landlordism contend that petty landlordism is a sign of ineffective

public housing policies and inefficient housing markets (Kumar, 1996). Petty landlordism is a reaction to the unaffordable and inaccessible 'low income' single family housing that governments have over the years attempted to build to address the housing situation in developing countries. However, these housing interventions have not successfully addressed the dire housing needs of the urban low income households (Aina, 1990; Kumar, 1996). Again, the informality associated with petty landlordism has prevented any enforcement of rent control measures and the quality of such dwelling units leaves much to be desired (Datta, 1995).

Renting is the predominant tenure arrangement in such multi-habited dwellings. Peil (1994) has suggested that it is due to the low income households' inability to own formal housing that has led to the spate of renting among the urban low income households. However, UN Habitat (2003) suggest that rental housing policy may offer more opportunities for improving living standards of the poor considering the challenges associated with the provision of owner-occupied housing by governments. Peil (1994) identified that rents charged were a minor percentage of 10–15% of the household income, making it affordable for the urban poor. In Ghana a collection or demand for an upfront downpayment of two to three years rent makes renting unaffordable to the urban low income household. However, there are some households living rent-free in multi-habited dwellings. According to the GSS (2008), about 25% of the population in Accra lives rent-free and this form of tenure provide accommodation for the low income household.

Measuring residential satisfaction

Residential satisfaction gives an indication of the quality of life of residents and a reflection of the degree to which residents feel that

their housing is helping them to achieve their livelihood. Residential satisfaction is often conceptualised as the difference between households' actual and expected housing and neighbourhood conditions (Galster and Hesser, 1981). Residential satisfaction has been conceptualised in many different ways but is generally analysed by associating satisfaction with internal dwelling design, including facilities, size, cost and design (Buys and Miller, 2012) or the housing unit, neighbourhood and homeownership (Rohe et al., 2013).

In measuring residential satisfaction, Amerigo and Aragones (1997) considered aspects of the neighbourhood and the house. The physical and social environment as well as the subjective and objective evaluation of the housing attributes including residents' opinion of their neighbourhoods offered important insights on which aspects of the setting have a greater impact on overall households' residential satisfaction (Adriaanse, 2007; Amerigo and Aragones, 1997). Gibson et al. (2011) suggested that very specific aspects of the physical or the built environment can influence residential satisfaction as they impact on mental wellbeing and quality of life. Neighbourhood facilities also influence residential satisfaction in many ways. The position of the housing area with respect to work place and other facilities such as distances to town centre, school, police station, hospital, market, shopping centres, public library, religious buildings, bus and taxi stations are all factors that will influence a resident's satisfaction (Mohit et al., 2010). In addition, green spaces, environmental health or pollution, upkeep and cleanliness, pace of life, as well as the social milieu are equally important neighbourhood predictors in residential satisfaction (Rioux and Werner, 2011). Other community factors that are likely to predict housing satisfaction include variables such as noise, crime, accidents, security and community relations (Mohit et al., 2010).

Place attachment influences residential satisfaction. For example, strong attachment to an area predicts greater maintenance of a respondent's house (Galster and Hesser, 1981). Inversely, households who are not attached to a place or who consider themselves as tenants hardly invest in their dwellings and are quick to express residential dissatisfaction and are quick to move. Again, petty landlords who treat multi-habited houses only as an investment without much attachment may not be necessarily concerned with residential satisfaction.

Saegert and Evans (2003) draw a direct link between poverty, housing and health, suggesting that residing in resource-rich housing environments positions residents to improve their life circumstances, including health and housing by employing the human and social capital they accumulate. Thus, living in inadequate housing situated in neighbourhoods lacking social capital and basic infrastructure may not bring total satisfaction (Saegert and Evans, 2003). Hiscock et al. (2001), studying the ontological security and psycho-social benefits using housing tenure as the measure, found that residential satisfaction has to do with having wealth, living in a nice area, living in a larger and better quality dwelling and being settled in relationships and work.

A conceptual framework developed by Weidemann and Anderson (1985) viewed housing as a home representing the social-physical environment and multifaceted in character. Hence, residential satisfaction from the occupants' evaluation revolves around three responses to their home: affective, cognitive and behavioural. The affective response is the feeling of pride and satisfaction a person derives from specific aspects of the home including the physical environment, the dwelling or the house and the social-physical environment. The cognitive response is the judgement formed that influences residential satisfaction of the individual household.

According to Lu (1999), residential satisfaction is a complex cognitive construct that has been approached from different angles by several researchers but the theoretical underpinnings have been similar. However, Jayanti (1995) concluded that it is not enough to study consumer satisfaction from only the cognitive perspective but also from the affective dimension. Both cognitive evaluations and affective responses play complimentary roles in residential satisfaction judgements. Amerigo and Aragonés (1997) hypothesised that favourable behavioural attitudes such as good relations with the neighbours, participation in neighbourhood activities and maintenance of the house will affect residential satisfaction. Together, the cognitive, affective and behavioural responses of households will determine residential satisfaction among urban low income households in Ghana.

Study area

The study communities lie within the Greater Accra Metropolitan Area (GAMA) in the Greater Accra Region of Ghana as shown in Figure 1.

Accra, being the capital city, is the hub of political, economic and migrant activities. It holds the seat of government and has the head of various ministries and judiciary institutions located within it. The cosmopolitan nature and economic importance of GAMA have made it a destination for both inter-regional and intra-regional migration. GAMA has a total population of 3,756,423 out of the total regional population of 4,010,054 (GSS, 2012). Approximately 16.3% of the national population lives in GAMA (GSS, 2012). The population density for the Greater Accra Region is 1236 persons per km² (GSS, 2012). Bordered by the Gulf of Guinea at the southern side, the spatial expansion of the city is limited to only three directions, which are the north, east and west.

GAMA displays diverse residential settlements ranging from low income settlements to high income residential areas. Each residential settlement is a mix of migrants and indigenous people living in single and multi-family dwellings including family houses and compound houses. Housing supply in GAMA is mainly from five sources; namely government-sector supply, the corporate sector supply, the not-for-profit supply, individual household incremental supply and informal housing. However, the low income housing supply is mainly achieved through middle to low income individual households who build incrementally and rent out rooms as petty landlords but hardly from the formal housing market segment. The government-sector supplied houses include bungalows that are built by individual organisations and mainly let out to government officials in managerial positions. Examples of such public houses are those built for the civil service, police, nurses, fire service and the military. These houses are often located within prime residential areas such as Roman Ridge, Cantonments and Labone in the AMA. Another form of housing supply is by the real estate developers. These houses are classified as high income to middle income houses.

The lower income housing supply is mainly from non-governmental organisations, individual petty landlords and informal housing. These houses have been described as inadequate and Melara Arguello et al. (2013) found that the environmental and sanitation state of such settlements in GAMA is deplorable. However, the share of low income housing supply in Accra is estimated to be 80% of the existing housing stock (Intsiful, 2004). In GAMA, family houses are the major form of urban low income housing provision since this type of housing provides accommodation for low income indigenous households who live rent-free and migrant low income households

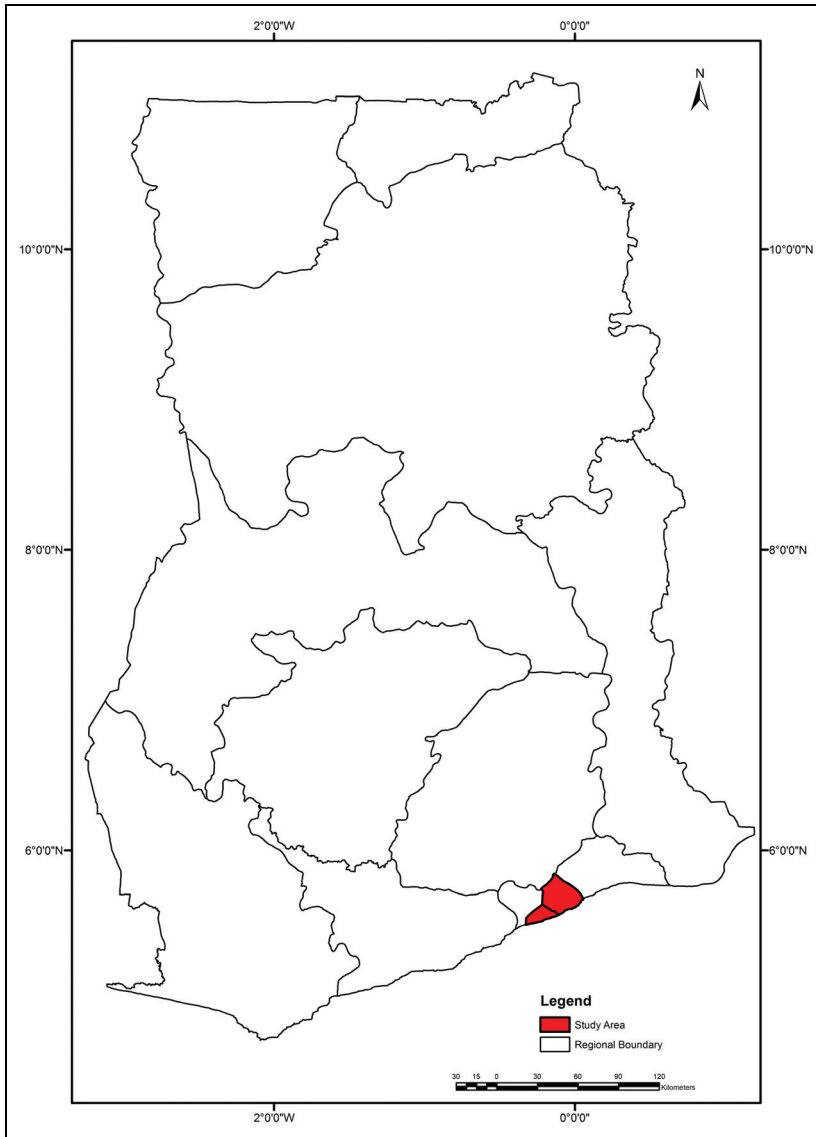


Figure 1. Location map of Greater Accra Region showing GAMA.

Source: Adapted from the Survey and Mapping Division of the Lands Commission in Ghana.

seeking affordable rental housing within the city centres.

The five study communities are James Town, Tema Manhean, Madina, Accra New Town and Ashaiman (Figure 2). These communities are described as low income communities in the GAMA. Madina, Accra New

Town and Ashaiman are predominantly migrant communities that have expanded over the years. However, the old part of these communities displays a lot of multi-habited compound housing. James Town and Tema Manhean are predominantly indigenous communities occupied by the *Ga*¹

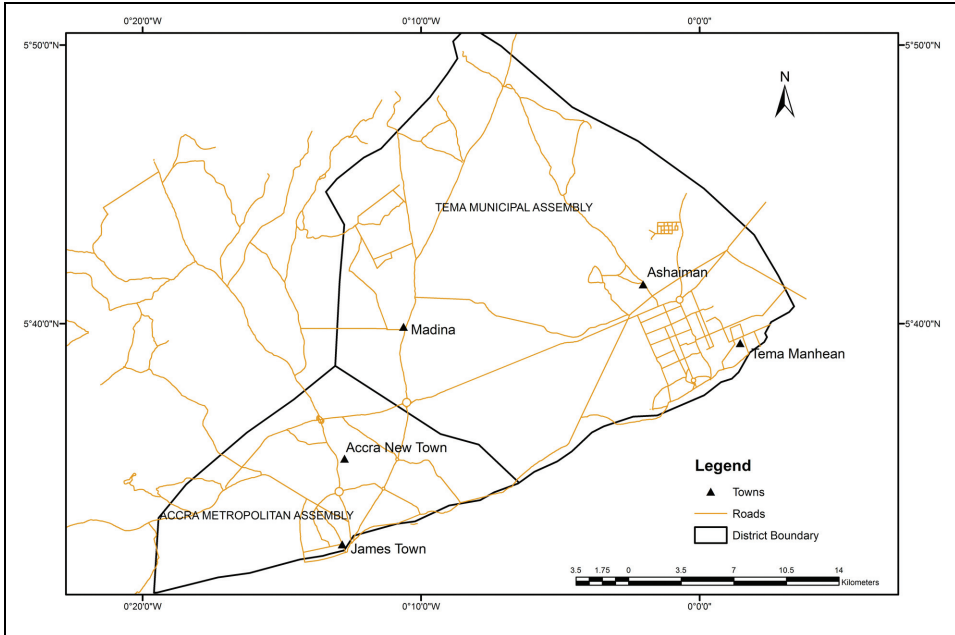


Figure 2. Map showing the study areas.

Source: Adapted from the Survey and Mapping Division of the Lands Commission in Ghana.

tribe who live in family houses. However, unrelated households, in some cases, tend to rent rooms from the family houses. Such households are expected to conform to the norms of conduct prevailing in the houses. Generally, the patterns of social relationships in family houses are closer than in compound houses. The family head in family houses acts as the symbol of authority ensuring that there is some continuity to the mutual obligation of giving and receiving assistance from extended family members. The family head is saddled with the responsibility of efficiently managing all social affairs pertaining to the extended family members.²

On the other hand, compound houses, predominantly occupied by migrants, show more ethnic diversity. In these houses one can certainly not choose his/her immediate neighbour since only available rooms are given out to prospective tenants. Consequently, most neighbours are seldom related and display a mix of different ethnic background or social

status. A relationship is developed out of keeping 'good terms' with each other. The migrant household experiences a social system which is characterised by conflicts and the absence of traditional forms of security. However, mutual assistance is provided to members of the house with each member recognising that their positions can alternate between a helper and needing help. This relationship is primarily directed towards achieving households' livelihood outcome. In migrant compound houses, the landlord or landlady is usually the head of the compound exercising the power of administration and overseeing the smooth running of activities in the house to ensure good cooperation among the households by instituting norms to govern the operations in the house. However, social activities within each household are conducted by the household head. If social activities need to take place within the compound, then permission is sought from the landlord/landlady. This is contrary to what pertains in

the predominantly indigenous family houses where the family head has more control over the social activities held in the house.³

Survey and methodology

Using a cross-sectional approach, a multi-stage cluster random sampling method was used in the sampling design (United Nations Statistics Division (UNSD), 2005). The survey collected information from approximately 290 respondents in five communities in GAMA. Of the total respondents 26.6% were female while 74.4% were male. The administered questionnaire captured information on the social and economic profiles of households by purposefully selecting the household head. In his (her) absence, an adult representative was selected as the respondent. The household head was defined based on the spatial (within the housing unit), functional (as the main provider for the household) and structural terms (the societal definition of the household head, and this is often the male adult if present) of a household (Yaro, 2004).

Although the selected communities were generally classified as low class residential areas in 1999 (Songsore et al., 2006), some communities within Madina and Ashaiman have developed into middle-high class residential areas. Hence, the study was limited to the old settlements that had mainly multi-habited compound housing and the questionnaires administered by trained research assistants. The household survey was conducted in the selected communities from November 2009 to September 2010. In instances where the respondents were not fluent in the English language the questions were translated into two predominant Ghanaian languages (Ga or Twi) spoken in GAMA. Using proportional sampling of the population in the communities, 34 households were each sampled from James Town and Tema Manhean, while 74 households

were each sampled from Madina, Accra New Town and Ashaiman. In all a total of 290 households were interviewed.

In addition to the quantitative survey, a qualitative data collection method was conducted to gather information to confirm, disprove, support, ascertain and explain trends and results obtained from the household questionnaires. In-depth interview guides and focus group discussions were employed during the data collection. These interviews were conducted outside the homes to give the respondents the free will to express themselves without any fear of being overheard by the landlord and ejected from the house. The perceptions and acceptability of multi-habitation in urban low income housing provision was considered by looking at the interactions and informal social networks under multi-habitation, sharing of space and conflicts under multi-habitation, the level of satisfaction of households living in multi-habited dwellings and the acceptability of multi-habitation as a housing provision strategy in the 21st century.

The household respondents were asked to indicate their level of satisfaction of these variables on a Likert scale which ranges from 1 (very dissatisfied) to 5 (very satisfied). The satisfaction indices were computed by adding up all scores for each variable by a respondent. The total of the scores obtained from the Likert scale is divided by the maximum possible total score and the result is then multiplied by 100 to obtain the satisfaction index of the respondent as a percentage (Ogu, 2002). The satisfaction index for a particular residential component was calculated according to Ogu (2002):

$$SIc = \frac{\sum_{i=1}^N J^i}{\sum_{i=1}^N J^i} \times 100 \quad (1)$$

where SIc is the satisfaction index of a respondent with the component c , of the residential environment, N is the number of

variables being scaled under c , y^i is the actual score by a respondent on the i th variable and Y^i is the maximum possible score that i could have on the scale used.

After calculating for the satisfaction index for the individual variables, these are summed to achieve the residential satisfaction index for a component. The satisfaction indices were computed for dwelling unit, social networks and the neighbourhood facilities. The indices achieved were equally grouped into quartiles of very low (0–25%), low (25.1–50%), moderate (50.1–75%) and high (75.1–100%) satisfaction levels following Ogu (2002) and Mohit et al. (2010).

The habitability index is computed by summing the individual scores for each respondent for a variable. The sum total is divided by the total respondents. The indices are then calculated as a percentage of maximum possible score.

$$HIx = \frac{\sum_{i=1}^N ay^ix}{\sum_{i=1}^N Ay^ix} \times 100 \quad (2)$$

where HIx is the habitability index of a variable x , N is the number of respondents, a is the actual score by a respondent on the i th variable and A is the maximum possible score that i could have on the scale used.

The habitability indices were computed for the dwelling unit, social networks and the neighbourhood facilities. These indices were grouped into negative (0–49%) moderately positive (50–69%) and positive habitability (70–100%), following Ogu (2002).

Results

The nature of multi-habitation

Out of a total of 290 respondents, 72% (208) of the households live in multi-habited compound and family houses. Although there were generally more male-headed households, there was no marked difference

in the distribution of male (73%) and female (77%) household heads in James Town. About 32% of the households living in these houses had only one room while about 35% had two rooms. Just about 14% of the households had more than five rooms. More low income households in migrant communities occupied single rooms compared with those in the indigenous communities. For example, about 53% of the households in Ashaiman stayed in one room. This gives an indication of the extent of overcrowding in these houses.

A greater proportion of the houses had more than three households and only 21% of the houses had less than two households. About 58% of all the households surveyed were tenants staying in compound houses while 38% of the households stayed in family houses. Just about 4% lived in temporary shelters. About 50% of the respondents had stayed in their residential areas for more than 20 years. It was only in James Town that about 70% had stayed in the community for more than 20 years. Only 17% of the respondents in Ashaiman had stayed in their residential community for less than 5 years. There were more rent-paying tenants (54%) than rent-free tenants (36%). However, about 63% of the households in James Town were not paying rent.

As can be seen in Table 1, bathrooms and electricity supply are the most shared amenities in all the communities. This was followed by toilet facilities, waste collection and pipe-borne water in four of the communities except James Town. A majority of the compounds in James Town did not have toilet facilities and a proper waste collection system. Kitchen and lobby are the least shared amenities in the house. In Ashaiman, only 7% had lobbies and verandas. These spaces have been enclosed into sleeping rooms, preventing adequate ventilation into the inner rooms. In some instances, the verandas had

Table 1. Amenities shared in multi-habited compound and family houses by community.

Indigenous communities	Locality	Facilities	Shared (%)	Not shared (%)	Do not have (%)
Indigenous communities	James Town N = 24	Bathroom/shower	45.8	12.5	41.7
		Electricity supply	62.5	20.8	16.7
		Toilet	8.3	0	91.7
		Waste collection	8.3	12.5	79.2
		Pipe-borne water	12.5	0	87.5
		Kitchen	12.5	12.5	75.0
	Tema Manhean N = 22	Lobby	16.7	8.3	75.0
		Bathroom/shower	90.9	4.5	4.5
		Electricity supply	54.5	45.5	0
		Toilet	50.0	9.1	40.9
		Waste collection	45.5	45.5	9.0
		Pipe-borne water	36.4	13.6	50.0
Migrant communities	Madina N = 56	Kitchen	33.3	52.4	14.3
		Lobby	18.2	36.4	45.5
		Bathroom/shower	91.1	7.1	1.8
		Electricity supply	94.6	3.6	1.8
		Toilet	87.5	1.8	10.7
		Waste collection	82.1	17.9	0
	Accra New Town N = 51	Pipe-borne water	60.7	0	39.3
		Kitchen	57.1	19.6	23.2
		Lobby	44.6	28.6	26.8
		Bathroom/shower	92.2	7.8	0
		Electricity supply	86.3	9.8	3.9
		Toilet	78.4	5.9	15.7
Ashaiman N = 55	Waste collection	40.8	55.1	4.1	
	Pipe-borne water	58.8	7.8	33.3	
	Kitchen	43.1	27.5	29.4	
	Lobby	47.1	29.4	23.5	
	Bathroom/shower	72.7	25.5	1.8	
	Electricity supply	47.3	52.7	0	
		Toilet	25.5	23.6	50.9
		Waste collection	21.8	74.5	3.6
		Pipe-borne water	18.2	20.0	61.8
		Kitchen	38.9	46.3	14.8
		Lobby	7.3	38.2	54.5

Note: The survey data is now five years old and some differences are anticipated in findings in 2014 after the enforcement of by-laws to introduce domestic toilets in all houses in Accra.

Source: Field survey, 2009.

been enclosed and converted into additional living rooms either by the landlord or by the occupants. One respondent commented:

There are no kitchens, toilets and verandas in our [family] house and many other [family] houses in James Town because all of them have been converted to sleeping rooms. The issue is the land we occupy is insufficient for us to build kitchens and toilets. How can we have these facilities if the rooms in the family house are not adequate to cater for the expanding family members.

Respondents who did not have pipe-borne water in their houses fetched water from community stand pipes or from wells. There were no bathrooms specifically built for only males or females. They shared these facilities together. Sometimes the heads of the house or family heads have their own locked facilities, which they do not share with the rest of the household.

While the migrant communities performed better in terms of provision of facilities, most of the compounds in the indigenous communities lacked these amenities. However, James Town was the worst community in terms of toilet provision and waste collection while Madina had the most amenities in the compound houses.

Sharing of household items is usually reciprocal in nature. A member of the focus group living in James Town commented on the reciprocal nature of sharing in multi-habited family houses:

I live with my sisters. Sometimes we contribute and buy food ingredients and we cook together and eat. I sometimes leave my children with my sister and she also does.

Where the reciprocity is lost, conflicts occur and the person at the receiving end is described as a beggar. This creates a sour relationship among the households.

The results indicate that only 16% of the respondents were landlords and 84% were both rent-paying and rent-free tenants. About 61% of the total households shared the responsibility of maintaining the house with other family members, tenants and their landlord/landlady. About 16.3% of the respondents claimed that the maintenance of the compound house is done by a resident landlord and about 6.3% responded that it is done by a non-residing landlord. Just about 11.2% of the respondents claimed that maintenance of the house is done solely by the tenants. About 5.4% of the respondents claimed that the houses they live in have not been renovated, repaired or maintained. It was only in James Town that 62.5% of the respondents claimed that only tenants maintained the family houses. Generally, houses that had resident landlords were better maintained than houses with absentee landlords.

Cleaning of compounds and bathrooms are usually shared among the female members of the house while the male members take up the responsibility of maintaining the house. The women and children clean the communal areas while men buy the cleaning agents. Cleaning is done in turns by households or collectively. The study found out that about 66% of the households rotated daily in cleaning the house. About 29% of the households collectively clean the house and this sort of arrangement is prevalent in the family houses. Others (5%) employed other means of cleaning the house using hired labour and professional cleaners. Waste disposal in both the family houses and the compound houses are done through the hiring of the services of waste management companies.

The major sources of conflict stem from the mode of sharing, the mode of cleaning and the interpersonal relationships within the house. These conflicts were, in particular, accentuated in family houses in James

Box 1: The complaint of a male landlord

I have 16 tenants living in my house in Agbogba, Madina. They do not maintain the compound of the house by not weeding or cleaning the compound. When the electricity bill is brought, they do not pay and they do not pay for refuse collection. The house is unkempt. The Madina Municipal office fined me and took me to court so I came to tell them to maintain the house. Together they hauled me to the rent control department (in Accra) that they will not continue to stay in the house and so I have to refund their monies (rent advance) to them. They were given one month to stay till they vacated the premise. When they were leaving, some owed me four to six months electricity bill. They have left without paying.

Source: Ofori (2011) TV3.

Town compared with compound houses in Madina and Accra New Town. This situation is reported by a respondent in a compound house:

Many problems associated with compound house living is that other members do not clean the house very well especially the toilets. You have to do the cleaning always because you are particular with the cleanliness of the bathroom and toilet and you do not want to get sick.

However, when questions were asked about conflicts during the household survey, a majority of the households responded that they were not experiencing any form of conflict living together and sharing facilities in the house. This was contrary to the response received during focus group discussions and in-depth interviews held with respondents outside their homes. The difference in responses maybe attributed to fear of ejection if overheard by the landlord or landlady. The interviews revealed that conflict often occurs in the mornings when households have to rush to work and need to use the only bathroom on the compound, and at the end of the month when the electricity and water bills have to be shared for the

households. The disagreements occur over the method of sharing the total bill. Some of the arguments were that some households own more electrical equipment than others and hence they should not share the electricity bill equally. This has led to the installation of separate meters for each room unit on some compounds. Conflicts can occur when there are petty jealousies and bad blood between households. The lack of maintenance of the compound and disagreement over payment of electricity bill exhibited by the tenants in Box 1 resulted in a conflict that had to be partially resolved in the rent control department.

Household residential satisfaction under multi-habitation

Household residential satisfaction is tied to the dwelling characteristics, the kind of relationship existing between households and access to neighbourhood facilities. In this study 16 residential satisfaction variables grouped under three key components were used (Table 2).

Figure 3 shows the satisfaction differences in dwelling characteristics, social networks and neighbourhood characteristics

Table 2. Variables used in measuring residential satisfaction in the three components.

Dwelling (physical) characteristics (D)	Social networks (S)	Neighbourhood facilities (N)
Number of rooms	Community support	Proximity to Central Business District (CBD)
Room size	Community safety	Proximity to the market
Cost of housing	Proximity to friends and relations	Proximity to workplaces
Utilities available		Proximity to community standpipe
Privacy in the compound		Proximity to public toilet
		Proximity to bus station
		Proximity to recreational facilities.
		Environmental cleanliness

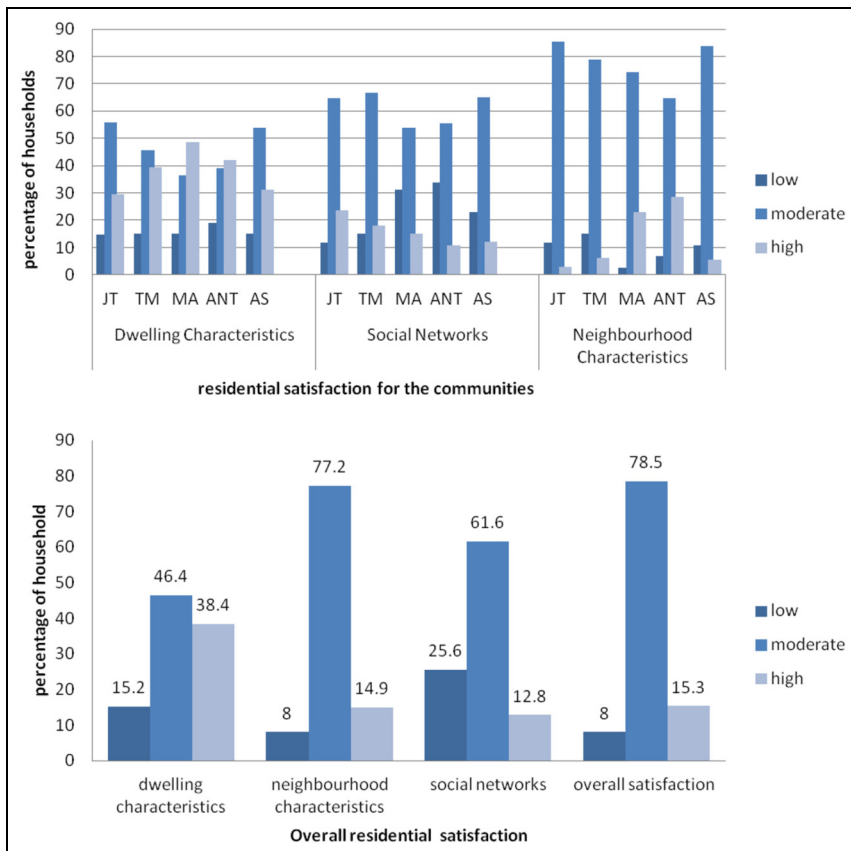


Figure 3. Proportion of household indicating level of satisfaction for all the components.

for the five communities. Over 40% of the households in Madina (MA) and Accra New Town (ANT) expressed high satisfaction with the dwelling characteristics compared with households in Ashaiman (AS) and James Town (JT). In Ashaiman

Table 3. Rank ordering of habitability indices for the various components.

Component	Description of variables	Habitability indices
S	Community support	73.4
N	Proximity to recreational facility	68.7
N	Proximity to public toilet	62.5
D	Utilities available in the house	59.5
N	Environmental cleanliness	59.2
S	Community safety	58.1
N	Proximity to community pipe	57.3
N	Proximity to central business district	55.1
D	Privacy in the compound	53.1
D	Cost of housing	51.9
D	Room size	47.8
S	Proximity to friends and relations	47.4
D	Number of rooms	47.3
N	Proximity to workplace	44.4
N	Proximity to bus station	43.3
N	Proximity to market	41.0

Notes: S: social networks; N: neighbourhood facilities; D: dwelling facilities.

and James Town, almost half of the households expressed moderate satisfaction with the dwelling characteristics. Generally, most of the households in all the five communities were moderately satisfied with the existing social networks but James Town, Tema Manhean (TM) and Ashaiman had over 60% of the households expressing moderate satisfaction as compared with Madina (MA) and Accra New Town (ANT). Similarly, most of the households were moderately satisfied with their neighbourhood characteristics but James Town and Ashaiman had over 80% of the households expressing moderate satisfaction. However, less than 5% of the households in James Town, Tema Manhean and Ashaiman expressed high satisfaction with the neighbourhood characteristics.

Overall, the results showed that 78.5% of the respondents were moderately satisfied with their residential areas. However, 77% of the respondents were moderately satisfied with the neighbourhood characteristics as compared with 46.4% who were moderately satisfied with the dwelling characteristics. This was followed by 62% who were

moderately satisfied with the existing social networks.

The results indicate that respondents' dissatisfaction was pronounced in the existing social networks and the dwelling characteristics. Very few respondents expressed dissatisfaction with the neighbourhood characteristics, and especially in Madina. Overall, 38.4% of the respondents were highly satisfied with their dwelling characteristics.

Habitability index

From Table 3, the habitability indices for the variables of the dwelling unit ranged from 47.4 (number of rooms) to 59.5 (utilities available). The habitability index for social networks ranged from 73.4 (community support) to 47.4 (proximity to friends and relations). The habitability index for neighbourhood characteristics ranged from 68.7 (proximity to recreational facilities) to 41.0 (proximity to market).

Community support received positive habitability index of 73.4%. This was followed by proximity to recreational facilities (68.7%) and proximity to public toilet

(62.5%), both described as moderately positive. In all three components some of the variables were described as moderately positive and others as having negative habitability index. No particular component was completely described as having only positive or negative habitability indices.

Discussion

The results show that there is a direct correlation between the facilities available in the house and level of residential satisfaction. Most of the households in Madina and Accra New Town expressed high residential satisfaction with the dwelling characteristics. This is explained by the fact that compound houses in these two communities had better utilities and amenities in the house, although they were shared.

With multi-habited dwellings being proposed as a key strategy to address housing supply in Ghana and increase accessibility to affordable housing, it is important to identify and understand the key variables that contribute to residential satisfaction in multi-habited dwellings especially for compound houses. This is necessary since provision of housing is mainly through the private real estate developers and individual petty landlords. Public sector-led housing supply is just about 7% (GSS, 2012). Although the Ghana government is beginning to intervene in the housing supply, it is targeted at the public sector and not directed to the private sector.

The gap in affordable housing supply is filled by petty landlords who incrementally build multi-habited compound housing. Urban low income households become petty landlords supplying other low income households with affordable housing through the renting out of single rooms in these houses. As migration increases, these informal housing developments become the main channels to supply affordable housing onto

the market. Formal housing supplies are limited, expensive and inaccessible to the lower income groups. Multi-habited family houses are also an alternative means that households find accommodation and live rent-free. However, the expanding family members living in family houses result in overcrowding and conflict in family houses.

This assertion was confirmed by the study showing that there is overcrowding in multi-habited houses in the study area given the number of rooms available to each household and the household size. Most of the family houses lack spaces for expansion but accommodate about three generations of households. Lack of adequate resources has prevented a number of the low income households from developing and moving out of the family houses or the compound houses. The study also indicates that the shared facilities in multi-habited dwellings are inadequate and lack regular maintenance although houses with resident landlords were better maintained. These landlords ensure that there is regular collection of monthly or occasional fees for maintenance especially during the *Homowo*⁴ festival and other celebrations. Inadequate and undefined maintenance schedules of shared facilities often results in conflicts. In such situations, residential satisfaction of households decreases, leading to dissatisfaction among households since there is a direct relationship between residential satisfaction and dwelling facilities. The dissatisfaction is pronounced in James Town, an indigenous community and Ashaiman, a migrant community.

Again, the limited number of rooms available to a household (one room and an additional room created by enclosing the veranda) reduced satisfaction among households. The petty landlords build small units affordable to the low income household and also maximise the use of the land. However, they lack capital for multi-level development. This situation greatly reduces a

household's habitability index regarding room size and the number of rooms available to each household. This dissatisfaction is buttressed by a respondent in a compound house:

If the government is planning to intervene then he should be thinking of building a hall and a chamber compound house (instead of single roomed compound house) so that the unit is more spacious. This will also be affordable to the very poor (compared to the cost of constructing two-bedroom bungalow), and we can take advantage of the inter-relations existing in the compound house. We can receive help from each other when we are managing our everyday needs.

The other variable associated with dwelling characteristics is the shared utilities available on the compound. They are inadequate and conflicts arise over their use. In some cases, as observed by Arku et al. (2012) and documented by AMA (2011), some of the houses in Accra lack toilet facilities (although this is now illegal). The situation poses problems for the local government as sanitation and waste management issues increase through indiscriminate dumping of refuse (Melara Arguello et al., 2013). The situation is not different for indigenous and migrant communities, although compound houses in migrant communities such as Madina and Accra New Town seem to have better facilities. Hence proximity to a public toilet is one of the key parameters for residential satisfaction. According to GSS (2008) only one out of every ten households in Ghana (22.2% in urban areas and 1.1% in rural areas) has access to a flush toilet. Ideally put by a respondent in a compound house:

Each family should have its own toilet, bathroom and kitchen. This is the only way to solve the problem (of conflicts). This is because every human interaction from different families having a wife and children in addition to sharing facilities would definitely lead to

conflicts. You will want to live peacefully but another person might want to pick a quarrel with you.

The situation has affected satisfaction levels of residents in the low income communities. From the study, residents living in compound houses were moderately satisfied with their dwelling characteristics, neighbourhood characteristics and existing social networks. However, the proportion of respondents moderately satisfied with their neighbourhood characteristics is higher than the other two components. Several studies have documented the deplorable neighbourhoods in which urban low income households stay which affect their residential satisfaction. Although households in this study are not any different (Arku et al., 2011; Baiden et al., 2011), their response (moderately satisfied) could be attributed to their long residency in the various communities. The respondents may exhibit hopelessness and despair knowing that their situation may never change and multi-habited houses may be the only option to access affordable housing in Accra. Others hoped they could one day build and move on and so they just adapt to the existing situation. This finding supports what was observed in Nairobi slums, where slum dwellers claimed that they were satisfied with their living condition (Mudege and Zulu, 2011). Another reason may be attributed to the 'sense of place' households feel after living in such neighbourhoods for a long time (Adriaanse, 2007), as one respondent in a family house puts it:

I have lived here all my life. This house belongs to my grandparents and it was bequeathed to my parents. I now occupy the room that my parents had as their share of the inheritance.

Increased satisfaction of urban low income households is highly dependent on community support received. This is because

households often have low incomes and tend to depend on each other for support. The social net of the traditional extended families in the rural areas are lost in the urban centres as a result of weak family systems in the urban centres and the nuclearisation of the urban family. The monetisation of the urban economy also takes a toll on the migrant household in terms of paying to access the most basic necessities such as housing which in the rural areas would have been free. The finding supports earlier research of Addo (2013) where it was established that households living in multi-habited dwellings depend greatly on the existing informal social networks. The results suggest that households in the indigenous communities were better satisfied with the existing social networks as compared with households in the migrant communities. The indigenous communities have their relatives staying close by. According to Ardayfio-Schandorf (2012), these support systems act as social capital for the low income households as they strive to achieve their livelihood outcomes. The social support systems act as mechanisms for pooling income, sharing consumption and household relations. This together act as 'critical safety nets' and 'shock absorbers' by reducing the vulnerability of its members (Moser, 1998). According to a respondent in a compound house:

If someone is undergoing any difficult times the person can receive help from co-members of the house as compared to those living in self-contained houses.

Residents' habitability index in multi-habited dwellings decreased when proximity to workplaces, marketplaces and bus stations reduced. Most urban low income households work in the informal job markets found in the market places. Unfortunately, the development of multi-habited dwellings by individual petty landlords is dependent

on the available land, which is often in the suburban areas, further away from the workplaces and the market places and bus stations. According to UN Habitat (2013), coordinating and integrating urban transport and land development is imperative for creating sustainable urban futures. Notably, the design and layout of a city strongly influences travel demand.

Conclusion

In conclusion, the research has addressed the three objectives: first the nature of multi-habited dwellings has been presented by looking at the gender distribution of the household heads, the household size, the number of rooms in multi-habited dwellings, and the length of stay. The living arrangement pertaining to multi-habited dwellings in terms of sharing and maintenance of facilities as well as the social dynamics prevailing in such form of living were all highlighted under objective one. The second and third objectives examined residential satisfaction levels and factors contributing to residential satisfaction among households. The results show that residential satisfaction of households living in multi-habited compound and family houses is linked to the dwelling characteristics, neighbourhood characteristics and the existing social networks.

However, the research found that inadequate dwelling characteristics have a negative impact on the residential satisfaction of the respondents. Generally, most of the households were dissatisfied with their dwelling characteristics. The habitability index for most neighbourhood facilities was low. The significance of this finding on multi-habited housing development and planning in Ghana reflects in the design, location and maintenance of such dwellings. Multi-habited dwellings will need to have adequate rooms and should be located in places where residents will have access to transport and

economic facilities (market and work places). Efficient landlord maintenance schemes will need to be developed in partnership with tenants, local government authorities and rent control departments. Although the addition of extra rooms will lead to high rental costs, and may result in gentrification of low income households (Rose, 2013) in these communities, provision of housing subsidies could curtail this phenomenon. Moreover, research has shown urban low income households' willingness-to-pay' when their housing is improved (Ayoola and Amole, 2014; Melara Arguello et al., 2013). Therefore, ultimately income improvement strategies will be the most effective tool for enhancing housing consumption.

Proximity to recreational areas also played a key role in resident's satisfaction and that aspect should be promoted when planning for urban low income housing. Multi-habited houses, either compound or family houses, need to have adequate shared facilities such as toilets and baths. This will curtail indiscriminate littering of the environment with human waste and its associated challenges in sanitation (Melara Arguello et al., 2013) and promote good public health. There will also be fewer conflicts over shared facilities. Unfortunately, inner city lands are used up and hence low income housing development will need to be in the suburban areas or the peripheries of the city. However, provision of efficient transport systems will enhance movement of households and goods.

Given that urban housing development in Ghana is not matched with infrastructure supply, and left in the hands of private real estate developers (UN Habitat, 2011), there should be policies to drive urban infrastructure expansion, enforcement of local government by-laws to ensure that each house has adequate amenities and utilities such as bathrooms, toilets, electricity and water supply.

Other places in Dar es Salaam and Kampala have encouraged local development banks to invest in sanitation infrastructure (Pieter van Dijk et al., 2014). Individual petty landlords should be encouraged to develop multi-level housing that will allow higher population densities but with less overcrowding. This can be achieved through resourcing and financing individual and real estate developers with housing finance loans. Putting in place proper management strategies will help maintain the multi-habited dwellings and curtail conflicts that arise out of shared management. The issue of location in the development of multi-habited urban low income housing in cities should be further explored as a means of addressing residential satisfaction of low income households in Accra and in other developing countries in terms of accessibility.

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Notes

1. The *Ga* are an indigenous minority ethnic Group from Greater Accra Region comprising just 7.4% of the national population (GSS, 2012).
2. Fieldwork by the author for PhD thesis.
3. Observations made by the author during the field survey.
4. An annual festival of the Ga people.

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