

Off-Campus Living Among Ekiti State University Students in Southwestern Nigeria: Health and Policy Implications

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Abstract: The quest for attaining higher educational levels has increased over the year leading to the dwindling in the availability of hostel accommodation. A cross-sectional descriptive study design was conducted among 312 respondents selected utilizing a multistage sampling technique. Quantitative data was collected using a semi structured self-administered questionnaire. Analysis was done as appropriate on the univariate and bivariate levels using SPSS software version 20 package. An assessment of bed space ownership showed a majority, 198 (63.5%) did not have bed space with only 114 (36.5%) being the legal occupant of which 51 (16.3%) were with squatters while the remaining 63 (20.2%) were without squatters. Overall, female students made up the greater proportion of students without legal occupancy. Illegal owners of hostel bedspaces (32.8%) were found to experience more incidences of domestic accidents such as falls, wounds, electric shock, burns and scalds in the hostel compare to legal owners (20.2%). Malaria was the predominant ailment experienced by the respondents 95 (49.2%), with asthma being the least 6 (3.1%). A greater proportion of the students are not legal occupants of their rooms. They are either squatters, floaters, colonizers or bought the spaces from the rightful owners. It is thereby advocated that universities need to engage in public private partnership using the “Build, Operate and Transfer” (BOT) model to build more hostels within the University premises.

Keywords: Off Campus, University Students, Health, Policy Implication

1. Introduction

The quest for attaining higher educational levels has increased over the year in Nigeria with more people striving to acquire additional degrees in order to compete favorably in the job market. This has led to the dwindling in availability of hostel accommodations with most students in tertiary institutions finding it difficult acquiring adequate accommodation. [1] Hence, they are usually left with the option of having to share rooms with many people resulting in over-crowded hostels. Provision of hostel accommodation should be considered as a fundamental responsibility of the institutions, as is

one of the several parameters to ensuring state of complete physical and social well-being of the students. The structure, location, facilities and services available are essential for optimum performance of the students. [2] Poor hostel conditions and usage caused by overcrowding may increase vulnerability to injury, disease and even death. [3] Adequate and appropriate housing conditions, on the other hand, not only protects students against health hazards, but also help to promote robust physical, mental and psychological comfort and social vigor.

The prospect for desired healthy accommodation for students is most fundamentally affected by overcrowding.

Sadly, most existing hostel accommodations are inadequate to foster optimum health or even to protect people against health hazards. In fact, national working group on tertiary education are other research teams have concluded that most Nigerian graduates from public university are increasingly not marketable and not readily employable. [4, 5] Research has shown that 80% of Nigerian graduates are unemployable. [6] This has been partly attributed to less than optimal academic environment where insufficient classrooms, hostel accommodation, laboratories and other teaching aids make the process of imparting knowledge grossly inadequate. [7] This development has evolved into major public argument, causing the ministry of education and other key stakeholders, and policy analysts to rethink and review existing guidelines aimed at changing this trend. [8] Top in their recommendations are the exploration of strategies aimed at provision of adequate housing for university students. [9].

Studies has shown the independent effect of overcrowding on physical health because the links are confounded by other factors such as generally poor living condition. As a result, this survey was conducted to determine the prevalence of adverse health conditions in On-campus student housing in a tertiary academic institution in south-western Nigeria.

2. Methods

A cross-sectional descriptive study design was conducted among a population of 312 students utilizing the Fisher formula for sample size determination. Respondents were selected using the multistage sampling technique. The first step was the selection of the six blocks out of the nine existing blocks using simple random sampling by balloting. The selected six blocks consist of the two blocks of Ajasin hostel of sixty occupants per block, one block of Government Hostel of capacity two hundred occupants and three blocks of Osekita Hostel with a capacity of one hundred occupants per block. The total number of students in the six selected blocks was six hundred and twenty. The second step was the proportional allocation of the sample size across the six selected blocks within the three existing hostels thus,

$$\left(\frac{\text{Number of students in each block}}{\text{Total number of students in the six selected blocks}} \right) \times \text{Sample size}$$

At Ajasin hostel; The two existing blocks were randomly picked.

$$\text{Block A} = \left(\frac{60}{620} \right) \times 350 = 34$$

$$\text{BLOCK B} = \left(\frac{60}{620} \right) \times 350 = 34$$

At Government hostel which is a one-block hostel with a

capacity of 200 occupants 113 students were selected; $\left(\frac{200}{620} \right) \times 350 = 113$.

At Osekita hostel; Blocks 1, 2 and 5 of the six existing blocks were also randomly selected and the respondents were also estimated as follow;

$$\text{Block 1, 2 \& 3} = \left(\frac{100}{620} \right) \times 350 = 56.45 \times 3 = 169$$

SECOND STAGE

The second stage involved the use of systematic random sampling in each of the block thus;

$$\left(\frac{\text{Total number of students in each block}}{\text{Proportion allocated to each block}} \right) = \text{The sampling interval}$$

At Ajasin Block A and B Sampling interval = $\left(\frac{60}{34} \right) = 1.8 \approx 2$ Thus, 2 was used as sampling interval for Block A&B

At Government Hostel Sampling interval = $\left(\frac{200}{113} \right) = 1.8 \approx 2$

At Osekita Hostel sampling interval = $\left(\frac{100}{56.45} \right) = 1.8 \approx 2$

The second step was the selection of the respondents in each block using simple random sampling by balloting. This was achieved by picking yes or no in each of the respondents room.

Quantitative data was collected using a semi structured self-administered questionnaire. The questionnaire had four sections capturing the social-demographic characteristics of the respondents, residential status and living conditions of respondents, students' awareness of overcrowding and the environmental as well as infrastructural facilities of the respondents' hostel. Verbal consent was obtained from the respondents after detailed explanation of the objectives, scope and benefits of the study had been made known to them. Analysis was done using SPSS software version 20 package. Frequency distribution table(s), simple percentages and means were used to present the data. Cross tabulation of important variables was also done. The indices of measurement included the proportion of students whose sickness were associated or aggravated by overcrowding. Chi-square test was used to determine statistical significance of differences in variables observed and p-value was set at $p \leq 0.05$.

3. Results

A majority of respondents, were between the age 21-25 years (42.6%) with the fewest number being those that were 30 years and above (5.4%). Mean age of the respondents and standard deviation (SD) was 22 (± 4.2). About 68% of respondents were female compared to their male colleagues (32%). Out of the total 312 respondents, 73.4% were Christians, 25.0% were Muslims, while other religions accounted for 1.6% of respondents. A total of 250 (80.1%) were single while the remaining 62 (19.9%) were married. (Table 1)

Table 1. Socio-Demographic Characteristics of the Respondents (N=312).

Variable	Frequency	Percentage (%)
Age groups(in years)		
20 and below	130	41.7
21 - 25	133	42.6
26 - 30	32	10.3
Above 30	17	5.4
Mean	22±4.2	
Gender		
Male	101	32.4
Female	211	67.6
Religion		
Christianity	229	73.4
Islam	78	25.0
Others	5	1.6
Marital status		
Single	250	80.1
Married	62	19.9
Physically Challenged		
Yes	49	15.7
No	263	84.3

An assessment of bed space ownership showed a majority, 198 (63.5%) did not have bed space with only 114 (36.5%) being the legal occupant of which 51 (34.9%) were with

squatters while the remaining 63 (20.2%) were without squatters. Majority of the respondents 271 (86.9%) shared bed while the remaining 41 (13.1%) did not share bed. Overall, female students made up the greater proportion of students without legal occupancy. (Table 2). Furthermore, 251 (80.4%) of the respondents confirmed that there were religious activities in the hostel of which a majority 145 (57.8%) admitted that this religious activities had a positive effect on them. It was also observed that effects of religious activities on the respondents had a significant association with students gender ($p=0.0001$). Most respondents 194 (62.2%) used hostel toilet facilities while the majority 202 (64.7%) used water from borehole for domestic activities. (Table 2) However, social conflict often occurred such as common room fight which accounted for about 49% of conflicts. It was observed that more male students (16.7%) allow unauthorized visitor in room at will compared to their female counterparts (14.6%). However, no significant association was found between practice of allowing unauthorized visitors into rooms and respondents gender.

Table 2. Gender based distribution of hostel their occupants by ownership status and some social behavioural characteristics.

Variable	Gender		Total n= Frequency (100.00%)	Statistical test
	Male n (%)	Female n (%)		
Space Ownership Status of the Respondents				$\chi^2 = 0.59$
Yes	39 (38.6)	75 (35.5)	114 (36.5)	df=1
No	62 (61.4)	136 (64.5)	198 (63.5)	P = 0.617
Accommodation Resident Status of the Respondents				$\chi^2 = 2.02$
Legal occupant with squatters	18 (43.9)	33 (31.4)	51 (34.9)	df=1
Legal occupant without squatters	23 (56.1)	72 (68.6)	95 (65.1)	P = 0.155
Allow unauthorized Visitor in Room at will				$\chi^2 = 0.22$
Yes	19 (16.7)	29 (14.6)	48 (15.4)	df=1
No	95 (83.3)	169 (85.4)	264 (84.6)	P = 0.359
Responses based on beddings				$\chi^2 = 0.893$
Those who share bed	65 (64.4)	124 (58.8)	189 (60.6)	df=1
Those who do not share bed	36 (35.6)	87 (41.2)	123 (39.4)	P = 0.206
Effects of religious activities on the respondents				$\chi^2 = 17.36$
Positive	75 (82.4)	101 (57.4)	176 (65.9)	df=2
Negative	6 (6.6)	19 (10.8)	25 (9.4)	P = 0.0001**
I cannot say	10 (11.0)	5 (31.8)	66 (24.7)	
Usage of hostel toilet facilities				$\chi^2 = 2.05$
Yes	69 (60.5)	125 (63.1)	194 (62.2)	df=1
No	45 (39.5)	73 (36.9)	118 (37.8)	P = 0.359

χ^2 = Pearson Chi-square, df = Degree of freedom, *Statistically significant at p value < 0.05, ** Statistically significant at p value < 0.001

Illegal owners of hostel bed spaces (32.8%) were found to experience more incidences of domestic accidents in the hostel compare to legal owners (20.2%). A significant association was found between ownership of bed space and risk of experiencing domestic accidents in the hostel ($p = 0.017$). Higher rates of Hospital admission were found among Illegal owners (13.6%) compare to legal owners (11.4%). (Table 3) However, no significant association was found between Hospital admission and ownership status. Half of the respondents 157 (50.3%) claimed there were places for luggage in the hostel, most of whom kept their luggage in space allocated. A good number respondents (57.1%) admitted that the period of stay in the hostels

affected their sleep quality, pattern and duration. Malaria was the predominant ailment experienced by the respondents 95 (49.2%), with asthma being the least 6 (3.1%). (Fig. 1) Of 178 respondents who experienced ailments in the last 3 months in the hostel, only 23 (12.9%) were admitted to the school clinic. Respondents however, believed that 99(31.1%) of their room mates were admitted in the last 3 months. Additionally, 88 (28.2%) respondents claimed that they had accidents in the hostel in the past while 84 (26.9%) agreed that their roommates had accidents. Majority of the respondents 97(42.9%) strongly believed that mosquito bites were mainly responsible for their ailments.

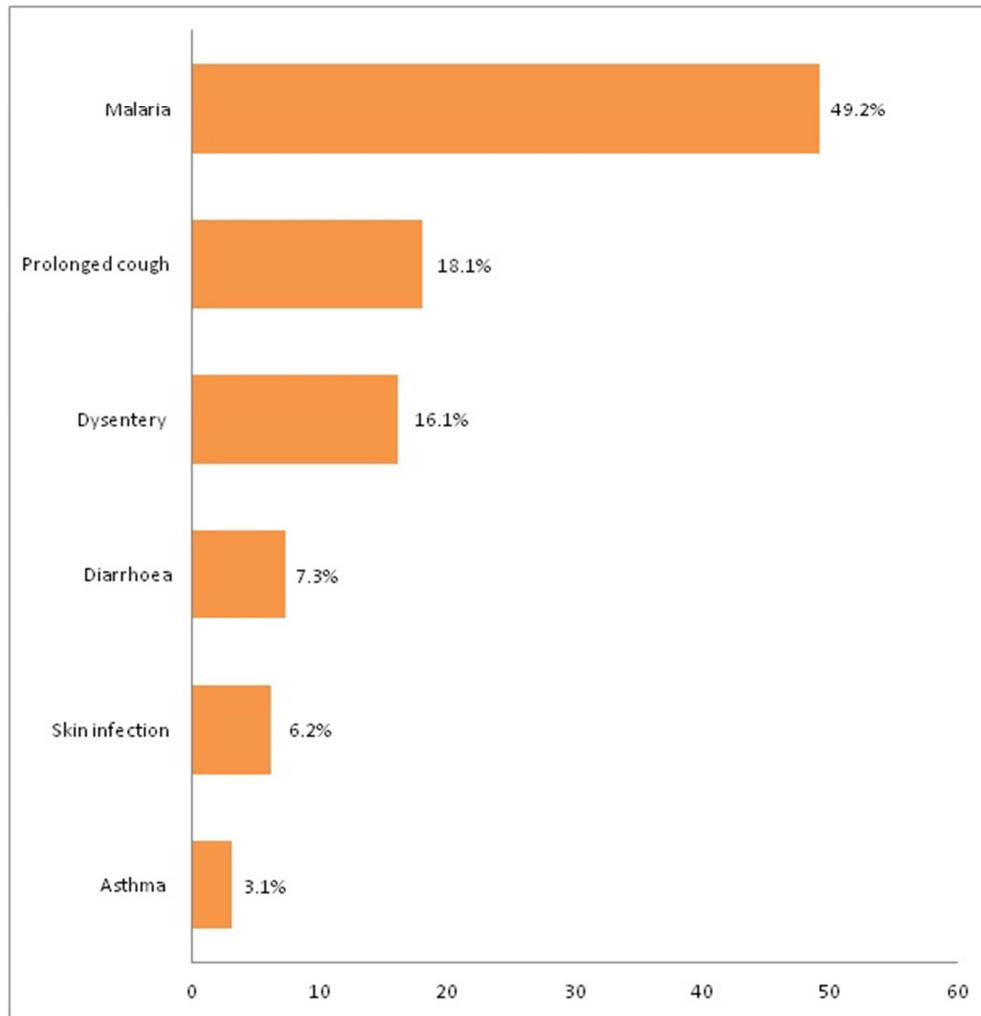


Figure 1. Prevalence of health conditions experienced by respondents in the last 3 months in the hostel.

Table 3. Students Legal ownership of hostel bed space by respondent's experience of adverse health related events, symptoms and some social behavioural characteristics.

Variable	Ownership of Bed space		Total n (100.00%)	Statistical test
	Legal Ownern (%)	Illegal Ownern (%)		
Experienced domestic accidents in the hostel				$X^2 = 5.80$
Yes	23 (20.2)	65 (32.8)	88 (28.2)	df=1
No	91 (79.8)	133 (67.2)	224 (71.8)	p = 0.017
Admission of the roommates of the respondents to the school clinic in the last 3 months.				$X^2 = 0.32$
Yes	3 (11.4)	27 (13.6)	30 (12.8)	df=1
No	101 (88.6)	171 (86.4)	271 (87.2)	P = 0.570
How the period of stay in the hostel affect sleeping pattern (multiple response) n=252				$X^2 = 7.87$
Quality	18 (36.0)	38 (26.0)	56 (28.6)	df=2
Quantity	17 (34.0)	31 (21.2)	48 (24.5)	P = 0.019
Both	15 (30.0)	77 (52.8)	90 (46.9)	
Engages in regular environmental sanitation activities				$X^2 = 0.28$
Yes	88 (81.5)	161 (83.8)	249 (83.0)	df=1
No	20 (18.5)	31 (16.2)	51 (17.0)	P = 0.599
Physically Challenged				$X^2 = 3.88$
Yes	24 (21.1)	25 (12.6)	49 (15.7)	df=1
No	90 (78.9)	173 (87.4)	263 (84.3)	P = 0.049
Presence of separate place for luggage in the hostel room				$X^2 = 2.43$
Yes	64 (56.1)	93 (47.0)	157 (56.3)	df=1
No	50 (43.9)	105 (53.0)	155 (49.7)	P = 0.119

Variable	Ownership of Bed space		Total n (100.00%)	Statistical test
	Legal Ownern (%)	Illegal Ownern (%)		
Places of luggage placement				
Under the bed				$X^2 = 8.80$ df=1
Any available space	28 (54.9)	37 (30.8)	65 (38.0)	P = 0.003
Luggage space allocated	23 (41.1)	83 (69.2)	106 (62.0)	
Main source of water for domestic use				
Borehole	79 (69.3)	123 (65.4)	202 (66.9)	$X^2 = 2.05$ df=2
Tap	31 (27.2)	62 (32.9)	93 (30.8)	P = 0.359
Well	4 (3.5)	3 (1.6)	7 (2.3)	

χ^2 = Pearson Chi-square, df = Degree of freedom, *Statistically significant at p value < 0.05, ** Statistically significant at p value < 0.001

4. Discussion

The student housing has been a major area of concern with increasing number of young people striving to acquire a desired carrier through education in the higher institutions of learning. This increase in population has led to several challenging conditions of student housing such as inadequate infrastructure facilities and overcrowding. From this work it is shown that only about two out of every three students were without hostel accommodation and likely to be colonizer, co owners, floaters or squatters being common clichés used among students who occupied their spaces illegally. This finding was corroborated by Yusuf *et al* where he assessed students access to housing in University of Lagos. [10] However on the contrary, a study by Aluko *et al* showed a hostel space ownership of more than two-third of the respondents been legal occupiers of a bed space. [11] The difference might be due to the level of orientation, compliance and enforcement of the rules that guide the use of hostels in the two Universities or probably because of poor availability of hostels at the Ekiti State University. The large proportion of squatters among the respondents could be attributed to limited spaces in the hostel. The high transportation cost from the host community might also compel some of the respondents to squat with their colleagues. The consequences of this might led to overutilization of already inadequate facilities like toilet and water, overcrowding and lack of privacy among the students.

Overcrowding in university hostels impacts negatively on the health and well being of students thereby culminating in their poor academic performance. Domestic accidents tend to occur when individuals live in closely neath circumstances as found in overcrowding. [12] The study found that three in ten students who were illegal occupants of spaces experienced varying forms of accidents such as falls, wounds, electric shock, burns and scalds. These findings are similar to the works of Anokye *et al* who studied students accommodation in Kwame Nkrumah University of Science and technology Ghana. [13] He found, fire outbreaks and falling from heights in addition to and other forms of social accidents such as incidences of theft, robbery and rape. The need to ensure safety in students' hostels will require continued advocacy to hostel managers, school authorities and other stakeholders to perform their expected roles. Likewise, capacity building and students enlightenment programs will maintain a healthy and

safe environment which would reduce potential risk of injury and accidents occurring. As regards fire outbreaks, it was observed that a larger proportion of the students in the hostels cooked in the room. Majority of them used cooking stove. Deduction from this analysis was that cooking in the room may also lead to in-door air pollution with its dexterous health effect on the students living in the hostel taking the consideration of duration of stay of the polluted air in the room. It is essential for student housing to provide the basic infrastructure facility needed by the student. Such facilities include, toilets, running water, electricity and a recreation area provision of these facilities in good working order is something that is not always readily available. The study also showed that less than half of the respondents did not use toilet facilities. This is also in contrast with the study carried out in the University of Lagos in which majority of the respondents used the toilet facilities. The reason for the difference might be as a result of the fact that University of Lagos is one of the first generation Universities and is being managed by the Federal Government while the Ekiti State University is being managed by the state Government where funding may not be readily available for proper maintenance as in the case of Federal Universities. This implies that the large proportion of respondents that did not use the toilet might result to open defecation which could also aggravate the spread of communicable diseases like cholera through contamination of underground water or surface water. This corroborates the two separate studies conducted by Boro on Physical Environment and Hygiene status at food service establishments in a tertiary care medical college campus and Aluko assessing the housing situation among students in Lagos. [11, 14]

Absence of appropriate spaces for keeping luggage was widely reported by close to half of respondents. This will further make the room less conducive for occupancy thereby further compounding the already congested rooms.

The results also showed that most of the respondents specified the presence of religious activities in the hostel from which a little above half of the respondents believed that the presence had a positive effect while few opined that the presence had a negative effect on them. This is in agreement with a study by Uchenna in Nigeria which looked at undergraduate religious affiliation and interpersonal relationships in a university setting. [15] This is also in agreement with Bronzaft A. L on the effect of a noise abatement programme on reading ability. [16] The study also

observed that illegal occupant's allowed unauthorized visitors in their room. This commonly leads social conflicts by increasing risk of fights, thefts and even rape due to infringement of students privacy. The results further corroborate the one carried out in West Bank and Gaza. [17]

The result also showed that majority of the respondents that had experienced one type of ailments during the period of staying in the hostel got knowledge about the possible cause of their ill health. The respondents believed that mosquito bites, poor hygiene, congestion, ventilation problem, cooking in the room and dust were the possible factors that might be responsible for their ill health. The results also showed that more than half of the respondents experienced one type of ill- health or the other during the period of staying in the hostel. The ailments mostly experienced during the period of stay in the hostels include malarial, prolonged cough and diarrhea diseases. Others are, skin infections and asthma. The result is in conformity with the one carried out in West Bank and Gaza in which various diseases range from asthma, cholera, malaria were believed to be caused by overcrowding. [18, 19] This is also in conformity with Dunn J. on housing and inequalities of health among the Vancouver residents. [20]

The Ekiti State University been a citadel of higher learning and functioning amidst economic recession, clearly has a fundamental role of providing adequate and improved housing for students. It is thereby advocated that universities need to engage in public private partnership to build more hostels within the University premises. Popularly adopted in some Universities is the "build, operate and transfer" (BOT) model which will ensure all admitted students are provided with reasonable accommodation. [21, 22] This will invariably improve the academic attainments of its students. Notwithstanding, it is imperative that students should pay stringent attention to the rules and regulations guiding the use of accommodation in the hostels.

5. Conclusion

Inadequate accommodation in university impacts negatively on the health and well being of students thereby culminating in their poor academic performance. The need to ensure safety in students' hostels will require continued advocacy to hostel managers, school authorities and other stakeholders. It is thereby advocated that universities need to engage in public private partnership to build more hostels within the University premises. This will ensure students are provided with reasonable accommodation thereby guaranteeing improved health and safety.

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