

Cost, Benefit and Risks Associated with in-Campus and off-Campus Accommodations of Medical Students: A cross-Sectional Study

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ABSTRACT

Background: Students' accommodation might influence their growth, behaviour and study performance. There is no clarity yet about safety issues, trends in substance abuse and on effect of type of accommodations on students' academic performance. **Objectives:** To compare students' perceptions regarding in campus and off campus accommodations with respect to cost, benefit and risks associated with them and also to investigate whether type of accommodation affect medical students' academic performance. **Materials and Methods:** In this cross sectional study, the data was collected using newly designed validated questionnaires from students who had stayed in campus accommodation (n = 100) and students who had stayed in off campus accommodation (n = 100). Data was analyzed using SPSS version 16. The group wise comparison was made using Mann-Whitney test. A p value of < 0.05 was considered as statistically significant. **Results:** The difference in the direct cost related to in campus and off campus accommodation was INR 43, 800/month with in-campus accommodation exceeding over off campus accommodation. Off-campus accommodation was perceived as more comfortable than in-campus accommodation, promoting collaborative learning and alcohol and substance abuse (p < 0.05) compared to in-campus accommodation. In addition, students who stayed in the campus performed significantly better academically than those who stayed outside the campus. **Conclusion:** The outside hostel accommodation is favorable to students in terms of direct cost and benefits. However, risks, including alcohol and substance abuse must be considered and appropriate precautions should be taken and counseling must be provided to students to avoid these risks.

Key words: Medical students, Accommodation, Academic performance, Cost, Benefits.

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INTRODUCTION

Students' accommodation might influence their growth, behaviour and even their study performance.^[1,2] Accommodation plays important role in student enrolment and adequate facilities can retain them in campus.^[3] There are many factors that predict students' preferences for housing on or off campus. Facility to cook meals, able to live with friends, location close to campus, safety, academic facilities available, internet speed, adequate living space and social atmosphere have bearing on the type of accommodation chosen by students.^[4]

In Melaka Manipal Medical College, students study MBBS course in two campuses. After completing 2½ years of

phase I of the program, students proceed to Malaysia for the clinical training in phase II. Students can opt out of in-campus accommodation after one year of compulsory stay in the hostel in 1st year of the course. Though our

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students are satisfied with the hostel accommodations as measured in an earlier study,^[5] around 90% of the students stay off campus in the 2nd year of the course. These off campus accommodations are private apartments or individual houses given on rental basis. A recent study done in Malaysian students identified 6 different aspects of student accommodation preferences, namely, social contact, visual, convenience, security, location, facility and amenity.^[3] However, this study had not explored the economic aspects of accommodation that direct students to prefer certain accommodations. There is a general belief in our students that off campus private accommodations are cheaper and more convenient. However, students and parents face dilemmas while deciding on the accommodation as there is no clarity yet about the safety issues, trends in drug abuse and alcoholism and also on the effect of type of accommodation on students' academic performance.

The objectives of this study were to compare students' perceptions regarding in campus and off campus accommodations with respect to cost, benefit and risks associated with them and also to investigate whether type of accommodation affect medical students' academic performance.

MATERIALS AND METHODS

Study design and subjects

The study was cross sectional where study subjects were students of Melaka Manipal Medical College (Manipal Campus), Manipal University, India. Study was conducted after obtaining permission from Institutional Ethics Committee. Students who had stayed in campus accommodation (n=100) for a minimum of one year and students who had stayed in off campus accommodation (n= 100) for a minimum of 1 year duration were included.

Questionnaire development

Two separate questionnaires were developed to collect data from students with in campus and off campus accommodations. The items in the questionnaire were identified after being discussed with 5 each students staying in the campus and outside the campus of Manipal University. These items denoted perceived benefits and risk involved with in campus/ outside the campus, cost involved in campus/off campus accommodations and also students' academic performance in the theory component of the previous summative examination. The items had

scales suitable to collect required responses (Table 1 to 5). The content validity the questionnaire was checked by two faculty members of Melaka Manipal Medical College. Students were asked to respond to the questionnaire after giving their informed consent.

Data analysis

Data was analyzed using SPSS version 16. The students' responses related items in 5-point Likert scale were expressed as median and interquartile range and group wise comparison was made using Mann-Whitney test. A p value of <0.05 was considered as statistically significant.

The direct cost of each accommodation in terms of rupees/hour was calculated as follows:

Cost of 1 hr (in campus accommodation)=A year course fee+hostel fee+food charges+internet charges+laundry charges+cost of books and other charges related to studies)/365×24.

Cost of 1 hr (off campus accommodation)=A year course fee+house rent+maintenance charges+ food charges+internet charges+laundry charges+cost of books and other charges related to studies+ transport charges if any)/365×24.

RESULTS

The response rate was 100% in both the groups. The total direct cost with in-campus accommodation was INR 160/hr whereas, with off-campus accommodation was INR155/hr (Table 1). Hence, the difference in the direct cost for the year amounted to INR 43, 800 (5×24×365). Off-campus accommodation was perceived as more comfortable than in-campus accommodation (p<0.05) (Table 2). In addition, students staying off-campus opined that their accommodation promoted collaborative learning compared to students who stayed in-campus. More number of students who stayed off-campus agreed that alcohol and substance abuse is seen more frequently in off campus accommodations than who stayed in campus (p<0.05) (Table 3). In addition, students who stayed in the hostel performed significantly better academically than those who stayed outside the campus (Table 4).

DISCUSSION

This study evaluated the perceptions of students regarding cost, benefits and risks associated with on campus and off

Table 1: Total direct cost for a student in Indian rupees (INR)

Aspect	In-campus Accommodation [INR]		Off-campus Accommodation [INR]	
	Actual cost	Cost/hr	Actual cost	Cost/hr
Hostel's fee/House Rent	1,52,471.62 per year	17.6	6,501.6 per month	9.03
Course fee	5,52,960 per semester	128	5,52,960 per semester	128
Food	249 per day	10.4	249 per day	10.4
Internet	720 per month	1	720 per month	1
Laundry	268.8 per week	1.6	67.2 per week	0.4
Books and Stationeries	1080 per month	1.5	1080 per month	1.5
Maintenance (only to outside hostel accommodation)	NIL	-	1497.6 per month	2.03
Transport	NIL	-	-	3.12
Total	160/hr	-	-	155/hr

Table 2: Students' perceptions regarding in-campus and off-campus accommodations

Items Related to accommodation	Accommodation				P-Value
	In-campus		Off-campus		
	Median	IQR	Median	IQR	
Comfortable (for studies, TV and Internet, other facility/services provided)	4	(3,4)	4	(3,5)	0.030
No safety issues	3	(2,4)	3	(2,4)	0.108
Students perform better academically	3	(3,3)	3	(3,3)	0.935
Frequently meeting lecturers possible	3	(2,3)	2	(2,3)	0.364
Convenient (easy access to campus facilities, shops, restaurants, gym, autos, laundry, etc)	3	(2,4)	4	(2.75,4)	0.098
Promotes collaborative learning (group study) among students	3	(2,3)	4	(3,4)	0.000
Get distracted	3	(2,3)	3	(3,4)	0.113
Favorable environment for self-study	3	(3,4)	3	(3,4)	0.363

Scale: 1=Strongly disagree, 2=Disagree, 3= uncertain, 4=Agree, 5= Strongly agree.

IQR: Inter-quartile range.

Table 3: Students' perceptions regarding alcohol and substance abuse seen in campus and off-campus accommodations

Item	Accommodation				P-Value
	In campus		Off campus		
	Median	IQR	Median	IQR	
Frequency of alcohol abuse	2	(1,3)	3	(2,4)	0.000
Frequency of substance abuse	1	(1,3)	3	(2,3.25)	0.000

Scale: 1=Hardly ever 2=Occasionally 3=Sometimes 4=Frequently 5=Almost always.

IQR: inter-quartile range.

Table 4: Academic performances of students staying in different accommodations

Type of Accommodation	Median	IQR	P value
In-campus	3	(2,4)	0.016
Off-campus	3	(3,4)	

Scale: 1; 100% - 85% marks, 2; 84% - 75% marks, 3; 74% - 65% marks, 4; 64% - 50% marks.

campus accommodations. Off campus accommodation found to be cheaper, more comfortable than in campus accommodation. More number of students staying off campus opined that their accommodation promotes collaborative learning. These factors could influence students to shift off campus after the one year of compulsory stay in campus. However, more students staying off campus opined that alcohol and drug abuse is more frequently seen off-campus than those students in-campus. In addition, students staying in campus performed better than those students staying off campus. Hence administrators and parents should be made aware of the negative factors associated with off campus accommodation and students should be counseled before permitting them to move off campus.

The off campus accommodation was cheaper than in campus accommodation. At Manipal, India, the hostels with single occupancy provided has all the facilities and housed near to the college, library and food court. Off campus private accommodations could house more students and house rent worked out to be cheaper as they could divide it among them. Students staying off campus perceived their accommodation more comfortable and convenient than those students staying in campus. Manipal campus has International Malaysian students, hence staying with their close friends with cooking facilities might have provided homely environment making their accommodation more comfortable. With in-campus accommodation, students had to follow regulations of campus and hostels which might have decreased the comfort.

According to students' opinion, off campus promoted collaborative learning than in campus. Factors like emotional support and communication medium are associated to collaborative learning.^[6] In this study, off campus accommodation with sharing might have created emotional bond with their house mates and added with homely environment might have promoted communication among students and collaborative learning. In addition, it was the general observation that, students with same ethnicity group up and share the accommodation and this could have improved communication by breaking the language barriers and other differences.

Majority of items in (Table 2) had a median value of 3 in both the groups. This type of response could be due to the uncertainty regarding the strength of their opinion as they could have perceived it in both the ways. It could also be that students were reluctant to state the socially unacceptable responses like a particular type of accommodation is associated with distraction, substance

abuse or lower academic performance.

The noteworthy observation in this study was that alcohol and substance abuse were seen more frequently in off-campus accommodation. An earlier study conducted in the institution had showed the consumption of alcohol by medical students^[7] and this study supports our earlier findings and reveals that alcohol and substance abuse is seen more frequently off campus than in campus. Studies have found that easy access and availability of drugs, pressure from house mates, high stress level seen in medical students might influence drug abuse.^[8]

Earlier studies had showed difference in students' academic performance based on accommodations.^[9] In our study, students who stayed in the hostel performed significantly better than those who stayed outside the campus. Many factors, including students' motivation, interest, perseverance, distractions, risky behaviours like alcohol and substance abuse might have contributed to academic performance. Hence it is worth while to explore all the factors including elements related accommodation in influencing students' academic performance.

The questionnaire was designed after discussing with 5 students staying in the campus and outside the campus. The major risk factors identified were alcohol and substance abuse. Hence we did not deal with other risky behaviours which are generally seen in students.

The results of this study must be communicated to administrators, hostel wardens and parents, who permit students to move off the campus after the compulsory 1 year of stay in the hostel. Students who are poor in academics and who are prone to drug or substance abuse must be detained from shifting. All the students must be counselled before permitting to move out.

This study was conducted on International students and in an Institution that meets International standards in education and hostel facilities for students. The finding of this study might be relevant to other institutions with International programs and our validated questionnaire may be used for conducting similar studies in other settings.

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