

Original Research Article

Assessing the overall relative satisfaction index of students towards college facilities: a cross-sectional study

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ABSTRACT

Background: A sound social environment is a key determinant to a students' welfare and improved academic performance.

Methods: An online cross-sectional study was undertaken among 172 medical students residing in the hostel facility of a medical college in urban Mysuru. A pre-tested RSI questionnaire was administered to the students to assess their overall satisfaction with the hostel facilities and the campus.

Results: Out of the 172 study participants who filled the questionnaire, the majority of them were females (56.98%). 70 (40.69%) students belonged to the second year, 31 (18.04%) were from the first year while 24 (13.95%) participants were in internships.

Conclusions: The study showed that students had moderate satisfaction with the hostel facilities and the campus. However, both the boys and girls were dissatisfied with the hostel canteen's hygiene and facility.

Keywords: Satisfaction, Medical student, Academic performance, Hygiene, College

INTRODUCTION

The education sector has expanded quickly in recent years all around the world. The demand for new and diverse disciplines in education has increased as a result of globalization and the digital revolution.¹ The rapid expansion of higher educational institutions has resulted in fierce competition. Only those institutions can succeed in this competitive climate which can provide quality education and a positive environment for their students, as both aspects play a significant impact on total student happiness.²

India is a significant player in the global education business. India boasts one of the world's most extensive networks of higher educational institutions. However, there is still a lot of room for improvement in the

educational system. In 2019, the number of colleges in India reached 39,931 with an enrolment of 37.4 million students for higher education. In 2020, India's gross enrolment ratio for higher education was 27.1%.³

When it comes to enrolling at a university, one of the most important considerations for students and their parents is the availability of student housing.⁴ It plays an important role in deciding a person's welfare, life sustenance and survival.⁴ Students' housing is one of the facilities that students consider when deciding which school or college to attend, among other factors.⁵ As a result, colleges must prioritize student housing while also increasing the college's reputation among other contemporaries.⁶

Students are the direct beneficiaries of the institute's services. Satisfaction is defined as the pleasure a person

might gain from the fulfilment of his wishes or expectations. Student's satisfaction has now become an important concern for the institute and its management, whether directly or indirectly.⁷ It is therefore important to provide the right environment to the students. Only when the level of satisfaction is high, the students can perform well, enjoy their studies and live comfortably. Moreover, the students will exhibit the right attitude and behaviour towards the institute only when they are fully satisfied with it.⁸ Conversely, if the satisfaction level among the students is low, it can hurt them which can affect their academic as well as daily activities and can even lead to depression.⁹ Thus, the external environment of the university should be given importance as the academic productivity of the students depends on the availability of facilities and other supporting services to a large extent.¹⁰

Hence, this study was intended to check whether the facilities in the hostel as well as the campus can affect the satisfaction level of the students. The level of satisfaction between male and female students was also investigated in this study. It also investigated if the students found the campus to be green and eco-friendly.

Objectives

The objectives were to assess the overall relative satisfaction index of students towards college facilities; to assess the difference in satisfaction levels among male and female students; to assess if the students found the campus to be green and eco-friendly.

METHODS

Study design and population source

An online cross-sectional study was conducted among college hostel students of a medical college in urban Mysuru between July 2021 to August 2021 to study the level of satisfaction of students towards college facilities. All students residing in college hostels who were willing to participate in this survey were included in this study while students residing outside hostel were excluded. The study was approved by the institutional ethics committee. The participant's consent was deemed to be given when they completed the survey and submitted the Google form successfully.

Sample size and sampling technique

A total of 910 medical students (255 males and 655 females) were residing in the college hostel. A pilot study was conducted to estimate the sample size. Assuming the average relative satisfaction index value to be 0.50 ± 0.10 , relative precision of 3%, an alpha error of 5% and the desired confidence interval of 95%, a sample size of 171 subjects was obtained. The questionnaire link was shared on the hostel WhatsApp group via Google forms. The survey remained open until the required sample size was reached.

Study tool

A pilot study was done to validate the questionnaire before it was administered to the actual study population. The pilot study served a dual purpose: first to test and develop research methods, and secondly to force the sort of analysis and processing that may be required later the questionnaire was developed. It was tested on a limited group of people. As a result, the instrument's material validity and reliability were confirmed.

The questionnaire consisted of 2 parts: part 1 consisted of demographic data while part 2 measured the satisfaction levels of the students. The questions in part 2 were measured by 5-point Likert scale ranging from 1-5, with 1 being strongly dissatisfied to 5 being strongly satisfied.

Statistical analysis

The data collected was entered in Microsoft excel 2019 spreadsheet followed by analysis using SPSS version 26 (statistical package for the social science) Windows, version 26.0. (IBM Corp. Released 2019. IBM SPSS statistics for Armonk, NY, USA). The socio-demographic details were represented using percentages. Data were analysed through the relative satisfaction index (RSI formula was taken from the reference study), the formula was given as,¹¹

$$RSI = \frac{5n_5 + 4n_4 + 3n_3 + 2n_2 + 1n_1}{5N}$$

Where,

n_1 is the number of respondents with strongly dissatisfied,

n_2 is the number of respondents with dissatisfied,

n_3 is the number of respondents with neutral,

n_4 is the number of respondents with satisfied,

n_5 is the number of respondents with strongly satisfied,

N is the total number of questionnaires filled and collected in the area.

The RSI scores assess the degree of measurement of the students' satisfaction. The minimum RSI value was 0.2, 0.6 was moderate and the maximum value was 1. The greater the value, the greater the degree of satisfaction. The minimum and maximum RSI values can be determined as follows,

$$\text{Minimum of RSI} = \frac{5(0) + 4(0) + 3(0) + 2(0) + 1(172)}{5(172)} = 0.2.$$

$$\text{Maximum of RSI} = \frac{5(172) + 4(0) + 3(0) + 2(0) + 1(0)}{5(172)} = 1.$$

Moderate of $RSI = \frac{0.2+1}{2} = 0.6$.

RESULTS

Out of the 172 study participants who filled the questionnaire, the majority of them were females (56.98%). 70 (40.69%) students belonged to the second year, 31 (18.04%) were from the first year while 24 (13.95%) participants were in internships (Table 1).

Table 2 shows the RSI score for each parameter assessed in the entire population. The students were more satisfied with the facilities outside the hostel with all measured

parameters having an RSI value above moderate. The students were most satisfied with the electricity supply in the hostel with an RSI of 0.8162. Besides this, the college library and the toilet availability in the hostel had the second and third-highest RSI values of 0.7593 and 0.7290 respectively. The RSI value inside the hostel was highest for electricity followed by toilet availability and water supply while college library, water supply in academic buildings and maintenance of garden topped the list for outside the hostel facilities. The lowest satisfaction levels were reported for cooking equipment's followed by canteen hygiene in the hostel with an RSI value of 0.5662 and 0.5848. The value for overall satisfaction ranged from 0.5662 to 0.8162.

Table 1: Demographic information of the respondent.

Variables	Category	Frequency (%)
Gender	Male	74 (43.02)
	Female	98 (56.98)
Batch	First-year	31 (18.04)
	Second-year	70 (40.69)
	Third-year	22 (12.79)
	Fourth-year	15 (8.72)
	Internship	24 (13.95)
	Post-graduation	10 (5.81)

Table 2: Overall RSI student's satisfaction level.

Facilities	Level of satisfaction					RSI	Rank	Overall rank
	Strongly satisfied	Satisfied	Neither satisfied nor dissatisfied	Dissatisfied	Strongly dissatisfied			
Inside hostel								
Toilet availability	38	65	44	20	5	0.7290	2	3
Toilet cleanliness	20	49	44	35	24	0.6069	8	19
Toilet condition	25	54	42	32	19	0.6395	7	16
Water supply	43	64	29	27	9	0.7220	3	4
Canteen hygiene	12	46	55	35	24	0.5848	10	21
Cooking equipment	10	38	64	33	27	0.5662	11	22
Library	26	53	48	21	24	0.6441	6	15
Electricity supply	71	66	24	11	0	0.8162	1	1
Laundry	24	41	49	22	36	0.5941	9	20
Security	49	39	26	31	27	0.6604	4	10
Ventilation	21	63	48	17	23	0.6488	5	14
Outside hostel								
Toilet Availability	17	80	42	20	13	0.6790	4	7
Toilet Cleanliness	17	55	46	37	17	0.6209	11	18

Continued.

Facilities	Level of satisfaction					RSI	Rank	Overall
Toilet condition	22	52	57	28	13	0.6488	9	13
Water supply	41	61	32	23	15	0.7046	2	5
Library	57	52	40	17	6	0.7593	1	2
Waste disposal	30	57	37	25	23	0.6534	8	12
Availability of dustbins	26	60	33	28	25	0.6395	10	17
Drinking water	28	61	44	17	22	0.6651	6	9
Maintenance of garden	52	52	24	18	26	0.7	3	6
Availability of gym	33	57	33	33	16	0.6674	5	8
Overall hygiene	20	73	37	20	22	0.6569	7	11

Table 3: Male RSI student’s satisfaction level.

Facilities	Level of satisfaction					RSI	Rank	Overall rank
	Strongly satisfied	Satisfied	Neither satisfied nor dissatisfied	Dissatisfied	Strongly dissatisfied			
Inside hostel								
Toilet availability	16	24	21	9	4	0.7054	2	4
Toilet cleanliness	6	22	17	16	13	0.5783	8	19
Toilet condition	12	20	17	13	12	0.6189	6	16
Water supply	17	28	10	14	5	0.7027	3	6
Canteen hygiene	3	21	20	17	13	0.5486	10	21
Cooking equipment	0	20	28	14	12	0.5513	9	20
Library	7	27	20	11	9	0.6324	4	13
Electricity supply	31	23	13	7	0	0.8108	1	1
Laundry	9	16	23	6	20	0.5405	11	22
Security	15	14	13	16	16	0.5891	7	18
Ventilation	7	28	19	6	14	0.6216	5	15
Outside hostel								
Toilet availability	9	41	10	8	6	0.7054	3	5
Toilet cleanliness	6	24	23	16	5	0.6270	10	14
Toilet condition	9	21	26	11	7	0.6378	8	11
Water supply	16	33	7	10	8	0.7081	2	3
Library	21	22	18	10	3	0.7297	1	2
Waste disposal	13	25	16	9	11	0.6108	11	17
Availability of dustbins	11	31	12	7	13	0.6540	5	8
Drinking water	6	32	17	9	10	0.6405	6	9

Continued.

Facilities	Level of satisfaction					RSI	Rank	Overall rank
	Strongly satisfied	Satisfied	Neither satisfied nor dissatisfied	Dissatisfied	Strongly dissatisfied			
Maintenance of garden	15	29	12	4	14	0.6729	4	7
Availability of gym	12	21	18	15	8	0.6378	7	10
Overall hygiene	2	40	14	6	12	0.6378	9	12

Table 4: Female RSI student’s satisfaction level.

Facilities	Level of satisfaction					RSI	Rank	Overall rank
	Strongly satisfied	Satisfied	Neither satisfied nor dissatisfied	Dissatisfied	Strongly dissatisfied			
Inside hostel								
Toilet availability	22	41	23	11	1	0.7469	2	3
Toilet cleanliness	14	27	27	19	11	0.6285	8	18
Toilet condition	13	34	25	19	7	0.6551	6	14
Water supply	26	36	19	13	4	0.7367	3	4
Canteen hygiene	9	25	35	18	11	0.6061	10	21
Cooking equipment	10	18	36	19	15	0.5775	11	22
Library	19	26	28	10	15	0.6489	7	16
Electricity supply	40	43	11	4	0	0.8428	1	1
Laundry	15	25	26	16	16	0.6142	9	20
Security	34	25	13	15	11	0.7142	4	6
Ventilation	14	35	29	11	9	0.6693	5	11
Outside hostel								
Toilet availability	8	39	32	12	7	0.6591	7	12
Toilet cleanliness	13	31	31	17	6	0.6571	8	13
Toilet condition	11	31	23	21	12	0.6163	11	19
Water supply	25	28	25	13	7	0.7040	3	7
Library	36	30	22	7	3	0.7816	1	2
Waste disposal	17	32	21	16	12	0.6530	9	15
Availability of dustbins	15	29	21	21	12	0.6285	10	17
Drinking water	22	29	27	8	12	0.6836	5	9
Maintenance of garden	37	23	12	14	12	0.7142	2	5
Availability of gym	21	36	15	18	8	0.6897	4	8
Overall hygiene	18	33	23	14	10	0.6714	6	10

The students were pleased with overall hygiene (0.6569) in and around the campus with the overall satisfaction level above average. The RSI value was also high for the garden (0.7), waste disposal (0.6534) and availability of dustbins (0.6395) making the campus green and eco-friendly and an ideal place to learn (Table 2).

Table 3 shows the level of satisfaction among male students. Similar to the overall satisfaction, the students were more satisfied with the facilities outside the hostel. The male students were most satisfied with the electricity supply in the hostel followed by the college library and water supply in the academic building with an RSI value of 0.8108, 0.7297 and 0.7081 respectively. The least satisfaction levels were observed for laundry facilities in the hostel followed by hygiene in the hostel canteen with RSI values of 0.5405 and 0.5486. The value of satisfaction is between 0.5405 and 0.8108 (Table 3).

From Table 4, for female students, the level of satisfaction was highest for electricity supply in the hostel (0.8428), college library (0.7816), toilet availability in the hostel (0.7469), water supply in the hostel (0.7367) and maintenance of college garden (0.7142) while it was lowest for cooking equipment in the hostel (0.5775), canteen hygiene (0.6061), laundry (0.6142), toilet condition in academic buildings (0.6163) and toilet cleanliness in the hostel (0.6285). The value of satisfaction is between 0.5775 and 0.8428 (Table 4).

DISCUSSION

Our study population had a slightly higher representation of female participants (56.98%). This study showed that the students were more satisfied with the facilities outside the hostel. The average RSI value was above moderate for all measured parameters.

Participants of this study were found to be most satisfied with electricity supply, water supply and toilet availability in the hostel similar to findings in several other studies. Ajayi et al showed from their study that electricity supply was the most functional facility causing the students to prefer the school hostels. They found that constant electricity supply aided in reading. The other in-hostel facilities like water supply and availability of standby generator were ranked 2nd and 3rd respectively.¹¹

Ajayi et al found that the students were relatively satisfied with the kitchenette and its facilities. However, in our study, we found that the students had relatively poor satisfaction when it came to cooking equipment and canteen hygiene inside the hostel. Outside hostel facilities such as the college library, water supply in academic buildings and maintenance of garden contributed largely to the RSI values for the on-campus facilities. This was similar to the findings of Mansor et al in their study. They found the facilities of lounge, drinking fountains and security led to higher satisfaction indexes among the students.¹⁰

On comparing the RSI values between males and females, this study found that facilities like electricity supply, college library and water supply were important to increase the RSI for both the groups. In addition, toilet availability and the maintenance of the college garden were important for the female students. The female students were dissatisfied with the cooking equipment, canteen hygiene, laundry, toilet condition and toilet cleanliness. The study by Mansor et al also showed similar findings among female students. Overall, the students in this study population were satisfied with the maintenance of the college garden, provision of dustbins on the campus and waste disposal inside the campus.

CONCLUSION

The study shows that the students were overall moderately pleased with the in-hostel and campus facilities of the study area. The students were also satisfied with the campus greenery and waste disposal system. Further, authorities must take initiatives to investigate the cause and take necessary measures to improve the hostel canteen facility. It is important to remember that if the students are pleased, their academic performance will improve and the complaints against the authorities will reduce.

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Ethical approval: The study was approved by the Institutional Ethics Committee

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