

ORIGINAL ARTICLE

MEDICAL EDUCATION AND SOCIAL ENVIRONMENT

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Background: A positive learning environment and quality of course content have an imperative role in academic achievement of students. This study aims to assess students' point of view about the quality of education and social environment of a public sector medical college in Pakistan. Relative scarcity of data from students' perspective merited this study. **Methods:** A cross-sectional survey was undertaken at Ayub Medical College, Abbottabad, Pakistan, including 300 medical students from all five years of the MBBS course. Systematic random sampling was used with a kth interval of 4 for each class. Self-administered questionnaire was used and contained items related to academics, learning environment, learning resources, teaching methodologies and student-friendly activities. The data were analysed using SPSS-16. **Results:** There were 265 respondents (88.3%) to the questionnaire with males accounting for 58.9% (n=156). In general students showed satisfaction with quality of content being taught; however there was discontent towards various academic and non-academic facilities provided to the students. Only 44.10% and 31.50% students reported provision of academic related facilities and interactive sessions as up to mark respectively; 83% students reported that undergraduate medical research was in need of improvement; 55.5% and 60.2% reported that facilities in hostel and recreational facilities needed improvement respectively; and 52.8% students stated presence of a healthy, student friendly, encouraging environment was not up to mark. **Conclusion:** Although course content and teaching methodologies are generally satisfactory, a healthy, student friendly, encouraging environment is yet to be created to help students foster their abilities completely.

Keywords: Medical education, Social environment, Academics, Learning resources

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INTRODUCTION

Environment of an institute is a paramount factor affecting the academic performance of its students. Medicine is a field with high academic demands which along with psychosocial concerns make medical education very stressful for students.^{1,2} In such a stressful academic routine, student friendly atmosphere is a must for creating career satisfaction. This satisfaction and also psychological well-being of medical students provided by a healthy academic environment needs to be addressed carefully.^{3,4}

Out of various factors affecting academic achievement of students, positive learning environment has an imperative role. Also the social support provided to the students and self-regulation skills are very important for academic achievement.^{5,6}

Recent studies have shown that most medical colleges are experiencing difficulties in providing the requisite educational experiences. This is particularly common in medical colleges of South East Asia.⁷ Existing medical education is being defied by new challenges. The medical

curriculum is becoming less successful in responding to the needs of the community.^{8,9} Importance of social accountability in medical field has been ignored since long. There is a need for use of new technology in education and medical practice.^{10,11}

Teachers of health professional education need to be well-informed of the trends and innovations and utilize these to increase relevance and quality of education to produce competent human resources for the region.¹²

Ayub Medical College, Abbottabad, Pakistan is one of most prestigious public sector medical colleges of the country with an estimated strength of 1450. The students enrolled here belong to diverse cultural, socioeconomic and educational backgrounds hailing from different and diverse areas of the country.

This deep rooted diversity has a very great role in psychosocial concerns of student masses, directly or indirectly affecting their academics, social adjustment and career satisfaction. However no study has yet been published addressing the voice of these students about the medical college.

This study aimed at assessing students' views about the quality of medical education, academic and non-academic support available and social environment of the medical college.

MATERIAL AND METHODS

A cross-sectional qualitative survey was undertaken at Ayub Medical College (AMC), Abbottabad. The study included 300 medical students from all five years of the MBBS course. Systematic random sampling was used with a k^{th} interval of 4 for each class.

A 10 item self-administered questionnaire was used in this study. The questionnaire consisted of statements regarding:

1. Course content
2. Modern teaching and learning facilities (internet, language labs etc.)
3. Academic related interactive sessions
4. Provision of research based teaching
5. Prevalence of a healthy, student friendly, encouraging environment
6. Co-curricular & recreational activities in the college
7. Facilities provided in the hostels
8. Quality of food available and standard of cafeteria
9. Ethics and moral values of students
10. Coordination between different student masses

Perspective of students regarding medical education was assessed through questions i-iv while perspective of education environment was assessed through questions v-x. Each item had two responses: 'needing improvement' and 'up to the mark'.

The survey was conducted after approval from institutional ethics committee of AMC, The participants were assured of confidentiality of the information provided and had an option of refusal to participate in the survey.

The anonymous questionnaire was distributed amongst students during breaks from their teaching schedule. The researchers collected the completed questionnaires.

The data obtained were analyzed using Statistical Package for Social Sciences (SPSS-16. Differences of frequencies between different variables/groups were compared using chi-square test; $p \leq 0.05$ was taken as significant.

RESULTS

There were 265 respondents (88.3%) to the questionnaire with males accounting for 58.9%

($n=156$). Maximum respondents were of 20–23 years of age with 21.5% from 1st year, 19.2% from 2nd year, 23.4% from 3rd year, 22.6% from 4th year and 13.2% from final year.

Quality of course content was up to mark for 76.5% students. Forty six percent students (117) reported that modern teaching and learning facilities provided by college were up to mark. Out of these 117, 9.4% (11) reported that course content needed improvement (Table-1).

The male students were more satisfied as compared to female students regarding the MBBS course content quality (table-2); 81.1% of males students ($n=120$) compared to 69.5% of females ($n=73$) reported that quality of education was up to the mark with overall satisfaction of 76.3% for both genders.

Total of 55.5% males and 55.1% females showed dissatisfaction over provision of modern teaching and facilities provided by the college ($p=0.95$), making for a total of 55.3% dissatisfied students in this category. 74.7% females compared to 66.0% males were not satisfied with academic related interactive sessions ($p=0.137$); in total 69.6% students were not satisfied with academic related interactive sessions. 88.5% female students compared to 80.4% males ($p=0.086$) reported that provision of research based teaching was in need of improvement; overall 83.7% students were dissatisfied with research based teaching.

Comparing the results of satisfaction over research based learning with class of respondents, there was increase in number of students reporting that research facilities provided were up to mark with 11.32% in first year to 23.32% in final year.

Two third of students were satisfied with morals and ethics of other fellow colleagues. However, almost another 1/3rd (37%) of students reported lack of coordination among student masses.

Quality of food was not up to the satisfaction of as many as 68% students. 55.5% students reported that facilities provided in the college were in need of improvements. 60.2% students were not satisfied with recreational activities were not satisfactory.

Environment of college as student friendly was reported by 47.2% as shown in table 3. However, academic related interactive sessions and provision of research based learning were not up to the mark as 68.5% students reported that there was need of improvement (Table-3).

Table-1: Course content compared to modern teaching and learning facilities

		Modern teaching and learning facilities		p-value	Total
		Need improvement	Up to the mark		
Course content	Needs improvement	49 (35.5%)	11 (9.4%)	<0.001	60 (23.5%)
	Up to the mark	89 (64.5%)	106 (90.6%)		195 (76.5%)
	Total	138 (54.11%)	117 (45.88%)		255
Missing-10			Total-265		

Table-2: Comparison of results with gender of respondents

Items	Response	Gender		p-value	Total
		Male	Female		
The course content in medical college	Needs improvement	28 (18.9%)	32 (30.5%)	0.033	60 (23.7%)
	Is Up to the mark	120 (81.1%)	73 (69.5%)		193 (76.3%)
	Total	148	105		253
Modern teaching and learning facilities (internet, language labs etc.) in my college	Need improvement	86 (55.5%)	59 (55.1%)	0.956	145 (55.3%)
	Is Up to the mark	69 (44.5%)	48 (44.9%)		117 (44.7%)
	Total	155	107		262
Academic related interactive sessions	Need improvement	99 (66.0%)	77 (74.7%)	0.137	176 (69.6%)
	Is Up to the mark	51 (34.0%)	26 (25.3%)		77 (30.4%)
	Total	150	103		253
Provision of research based teaching in my medical college	Needs improvement	123 (80.4%)	92 (88.5%)	0.086	215 (83.7%)
	Is Up to the mark	30 (19.6%)	12 (11.5%)		42 (16.3%)
	Total	153	104		257

Table-3: Perspective regarding medical education and social environment

Perspective Regarding Medical Education						
Items of Medical Education	Up to the mark		In need of improvement		Total	Missing Responses
	N	%	N	%		
The course content in my medical college is	195	76.50%	60	23.50%	255	10
Modern teaching and learning facilities (internet, language labs etc.) in my college are	118	44.70%	146	55.30%	264	1
Academic related interactive sessions are	81	31.50%	176	68.50%	257	8
Provision of research based teaching in my medical college is	43	16.70%	216	83.40%	259	6
Perspective Regarding Social environment						
Items of Social Environment	Up to the mark		In need of improvement		Total	Missing Responses
	N	%	N	%		
Ethics of students are	173	66%	89	34%	262	3
Coordination among students is	168	63.4%	97	36.6%	265	0
Food quality is	85	32.1%	180	67.9%	265	0
Facilities in hostel are	117	44.5%	146	55.5%	263	2
Recreational activities are	104	39.8%	157	60.2%	261	4
Student friendly environment is	124	47.1%	139	52.9%	263	2

DISCUSSION

Despite various studies highlighting quality of medical education and importance of social environment, there is scarcity of data regarding students’ point of view about their education and the environment of medical colleges in Pakistan. A Large majority of students in the present study reported that quality of course content was satisfactory; this was truer for male students than female students. This satisfaction for quality of education is in contrast to studies of Irby DM⁸ and Skochelak SE⁹ who reported that present medical curriculum is becoming less successful in responding to the present needs.

Our results have shown that students satisfied with quality of education were mainly those students who showed satisfaction over teaching and learning facilities provided by the college (table 1), thus endorsing that evidence based learning, satisfactory competence of teachers, modern learning facilities,

teaching methodologies, reference books used by the students, etc., all add up to create satisfaction for the quality as indicated by Sarinivasan M *et al*¹³ and Jain V *et al*.¹⁴

While considering the gender of respondents, male students were comparatively more satisfied with the quality of education and various facilities provided by the college. This shows that there is greater level of discontent among female students. This is consistent with report of Khan BA¹⁵ depicting that male students of Pakistani universities have greater degree of satisfaction.

Academic related interactive sessions in medical college inculcate better interaction, confidence, clinical application and preparation for university examinations in the medical college as indicated by Rehman R.¹⁸ Students feel more satisfied if their academics are imparted through interactive sessions. However our study shows that more than 2/3rd of the students showed discontent over academic

related interactive sessions depicting the dire need to upgrade the provision of these interactive sessions in the college.

In response to increasing need for research based learning and in order to facilitate researchers in the country, Pakistan Medical Research Council (PMRC) has been made with the mandate to promote, organize, coordinate and undertake health research in the country.¹⁷ However our results show that a large majority of students (88.5% female students compared to 80.4% males) were not satisfied with provision of research based teaching in the college. Our results are consistent with report of Qurashi A *et al*¹⁶ endorsing that academicians and researchers face problems due to poor infrastructure or lack of library facilities for research in medical institutions in this region. Level of dissatisfaction was not uniform among all classes, however. It was maximum in first year and minimum in final year. Thus depicting that research provision in higher classes was much appreciated.

Moral values as reported by 1/3rd of the students were in need of improvement. Almost similar number of students (37%) reported lack of coordination among student masses. Lack of concern and general negative psychology among students has direct relationship with cultural differences, background of student and bullying by senior colleagues. These differences in as many as 1/3rd of students increased their vulnerability to be bullied by other students as well. Ahmer S *et al*¹⁹ have also endorsed that students feeling less secure and isolated were more likely to be bullied by other students.

Factors influencing students' satisfaction over hostels in universities include satisfaction with fees, distance from university facilities, room safety, room size, hostel security, and other hostel facilities.²⁰ Our results showed that almost a half of students reported that facilities in hostel were in need of improvement with a satisfaction level of 44.5%. This is in contrast to reports from developed Asian Muslim countries like Malaysia where satisfaction level is 74% as indicated by Najib N.²¹ Our results are similar to Southwestern Nigerian universities where satisfaction level is 47% as indicated by Amole D.²² Particular dissatisfaction was over quality of food available with as many as 68% students showing dissatisfaction depicting a dire need for improvement of the facilities.

As many as 60.2% students showed dissatisfaction over provision of recreational facilities available for the students. Lack of such facilities in medical colleges, despite the physical as well as psychological stressful routine, is contributing towards increasing level of stress among medical students particularly among female students.²³ Various studies from the region have suggested that in order to compensate for the stressful routine of medical

students, recreational facilities should be provided as concluded by Jadoon NA *et al*²⁴. Despite previous studies, our study also shows the mass dissatisfaction over such facilities provided to the students, (i.e., if at all).

Various studies from the region have concluded that the development of student friendly environment in medical colleges is necessary for medical students in order to cope with the academic stress of medical college. In comparison to study from 6 medical colleges of region as indicated by Aarif SM,²⁵ our results indicate that environment of medical college to be student friendly is yet to be created as almost a half of students stated prevalence of a healthy, student friendly, encouraging environment is not up to mark.

However on account of lack of awareness among students and while considering the attitude of students toward such surveys, a quantitative study could not be performed. Thus limiting us to a qualitative study based on a 10 item questionnaire.

CONCLUSION

Although course content and teaching resources are satisfactory, there is dissatisfaction with teaching methodology due to lack of adoption of innovative and integrative techniques in particular dearth of research related activities. Moreover a healthy, student friendly, encouraging environment is yet to be created to help students foster their abilities completely.

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