"Program evaluation report of Abbottabad international Medical Institute Abbottabad

By

Dr Anwar Shahzad

MBBS (Pak), MPH (USA), FRSPH, MS (Nutrition), MBA (HRM),

MS (PM), MSc ECONOMICS, MA ENGLISH, CHPE (KMU)

Associate Professor Community Medicine

Director Medical Education AIMI Abbottabd

2018-2019

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DECLARATION

I acknowledge that this work has been done by DME AIMI Abbottabad

Dr Anwar Shahzad
Director Medical education AIMI Abbottabad

Post Office Abbottabad Public School Islamkot main Mansehra road Abbottabad
Phone:+92-992-406612-15 Email info@aimi.edu.pk website:www.aimi.edu.pk

ACKNOWLEDMENTS

With the name of Al –Mighty Allah I pay my prayers to all my College colleagues, honorable Professors, Associate Professors, Assistant professors and others Faculty members being kind and supportive all the time in this work

I am deeply indebted to my university fellows especially at KMU Peshawar and others to help me in provision of Evaluation performas and guidance to compile this report for their time and effort in collaborating timely needed inputs & utmost support. We are grateful to Professor Muhammad Javed, Chairman , Department of Medical Education (DME); Dr. Muhammad Akbar (Dean AIMI),Dr Sumaira Kazmi Associate Professor of medicine, Professor of Community Medicine Brigad ® Prof Dr Arshad wahab shah for their help in the conduct of the study and the preparation of the manuscript. The authors are also grateful to Mr. Raja Nabeel, statistician, for statistical analysis.

Vision Statement of KMU

"KMU will be the global leader in health care sciences academics and research for efficient and compassionate health care"

Mission Statement of KMU

Khyber medical University aims to promote professional competence through learning and innovation for providing comprehensive health care to the nation

Vision Statement of AIMI Abbottabad

"AIMI strives to be prominent among the leading medical institutes in contributing improved health care by training skilled and competent graduates with excellent standards of ethics, integrity and professional attributes".

Mission Statement of AIMI

"AIMI aims to achieve professional competence through learning and innovation to deliver comprehensive health care at quality standards"

Learning Outcomes of the AIMI Abbottabad for MBBS Program

Our graduates after completing MBBS degree program should be able to have

1. An appropriate Basics knowledge of medical sciences. (Cognitive Domain)
2. Concept of facility based and community based cases management (cognitive) Knowledge of ethical norms in medicine (Cognitive)
3. Elicit accurate and focused medical histories of patients and perform relevant, comprehensive physical examination. Evaluate the use of laboratory tests and imaging studies and interpret the results to arrive at clinical decision making.(cognitive)
4. Perform the common medical and surgical techniques in clinical settings including the 'basic life support'.(Psychomotor Domain)
5. Educate and motivate the patient to promote healthy habits for wellness and prevention of disorders.(Affective Domain)

ABSTRACT

Of the 300 questionnaires distributed, 238 (76%) were returned duly filled. Overall, 202 (67%) students were satisfied with all aspects of the lectures delivered and 177 (73%) students agreed that teaching staff was punctual in delivering lectures. Although (58%) students were satisfied with the teaching conducted in the wards, students felt dissatisfaction with the teaching carried out in outpatient departments and operating theatres. Multimedia was favored by 306 (56%) students as a supporting teaching tool. Although the students agreed that questions asked in examinations were relevant and the pattern of Objective Structured Clinical Examination (OSCE)
/ Objective Structured Practical Examination (OSPE) was satisfactory; they felt that the time allowed was insufficient. (74%) students agreed that multiple modes of assessment improved their knowledge and skill.

There was no consensus among the students on the best form of assessment. Number of students favoring short essay questions (SEQ's), multiple choice questions including true/false type, single best choice questions (BCQ'S) and descriptive questions were (38.8%), (32.7%), (13%) and (5%) respectively. There was disparity in students' satisfaction in internal assessment and university examination. Although (42%) students were satisfied with internal assessment, (37%) were satisfied with university assessment.in Graduate Survey 100 students were given questionnaire in which 73 submitted with an appropriate responses.71 % were satisfied with the overall environment and find it conducive for learning.

Conclusion: Overall, the students were satisfied with the lectures and clinical teaching conducted in the wards. Preferred methods of assessment included short essay questions (SEQ's) and multiple choice questions. Most of them wanted sufficient time for OSCE/OSPE and the satisfaction with university examination was only 37%.

Keywords: Teaching methods, Assessment methods, Students' feedback, Teaching tools, Internal assessment, University assessment.

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Chapter 1

Introduction

Recently, extensive changes have taken place in most countries at all levels to improve the standard of medical education. Teaching and assessment methodologies are evolving to achieve the intended goal. In Pakistan, the Pakistan Medical and Dental Council (PMDC) has taken steps to modify the medical curriculum to make it consistent with that of international standards. These modifications have included improved system of teaching and assessment.

It is generally agreed that reviewing the teaching and assessment methods at regular intervals is necessary so that methodologies can be modified for improving the undergraduate medical education. Various evaluation tools, such as feedback, help the faculty to identify the 4th Year MBBS Student, 3rd Year MBBS Student, at Abbottabd international Medical Institute Abbottabad, strengths and weaknesses of their teaching and assessment methods.

Therefore in developing the teaching and assessment strategies, it is important to obtain feedback from students that will later allow the teachers/faculty to modify their methods to meet the needs of the students without adversely affecting the standards of education. Of the many tools available, student feedback represents the primary means used by most programmes to assess their methodology.3 In addition, student feedback is considered to be the best method to bridge the communication gap between teachers and students.4 It is an inexpensive and invaluable tool to improve the quality of teaching.

Although student feedback is conveyed to the teachers verbally or non-verbally from time to time, a large-scale survey has never been conducted at our institution. The objective of the present study was to obtain student feedback on teaching and assessment at AIMI Abbottabad

Chapter 2

Research Methodology

Subjects and Methods

The descriptive cross-sectional survey of students at Abbottabad International Medical Institute, using non- probability convenience sampling, was conducted from October 21 to October 26, 2019. A specially-designed close-ended questionnaire was developed on the basis of interviews and discussions with medical students and teachers [Appendix-1]. It included questions about teaching and assessment of the students. The undergraduates were requested to indicate their agreement or disagreement about the given statements in the feedback form. To preserve anonymity of the responders, they were asked not to disclose their names when answering the questions. However, they were requested to print their age and gender on the proforma, along with learning methods and assessment methods evaluation graduating students' survey and survey about curriculum was also done by distributing questionnaires.

The survey included students from 3rd, 4th and 5th year M.B.B.S. classes & graduating Students were approached during morning class lectures on different days of the same week. They were briefed in the class lectures about the objectives of the study and were requested to answer the questions in 15 minutes. The questionnaires were collected at the end of the given time.

Recommendations were also sought from the students for improving teaching and assessment methods. Data was entered and analysed using SPSS version 21.

Descriptive statistics were applied to calculate the mean and standard deviation for the ages of the respondents. Frequencies and percentages were calculated for qualitative variables. Potential confounders like age, gender and year of study were controlled by stratified tables.

Survey Process at College

Fig 1: Survey at college 3rd Year MBBS

Fig 2: 4th Year MBBS in Survey

Fig 3: Boys in Survey process

2. Survey by Graduating Students

Graduating students

Boys in Survey (graduating)

Chapter 3 Results

Results

3.1 Results of Students learning & assessment process

The total number of medical students in all classes at AIMI Abbottabad at the time of the study was 300. After excluding First Year students, there were (78.5%) students left as potential subjects. The questionnaire was handed over to (46.3%) students of these classes, and 538 (99.07 %) returned the questionnaire after completion. The number of respondents from, 3rd, 4th and 5th Year were (31%), (31.2%), and (37.3%) respectively. The number of male and female respondents was (37.73%) and (62.2%) respectively. The mean age of the respondents was 22.39±1.47 years and it ranged from 19 to 26 years.

Graph 1: Students Feedback on teaching and assessment at AIMI Abbottabad

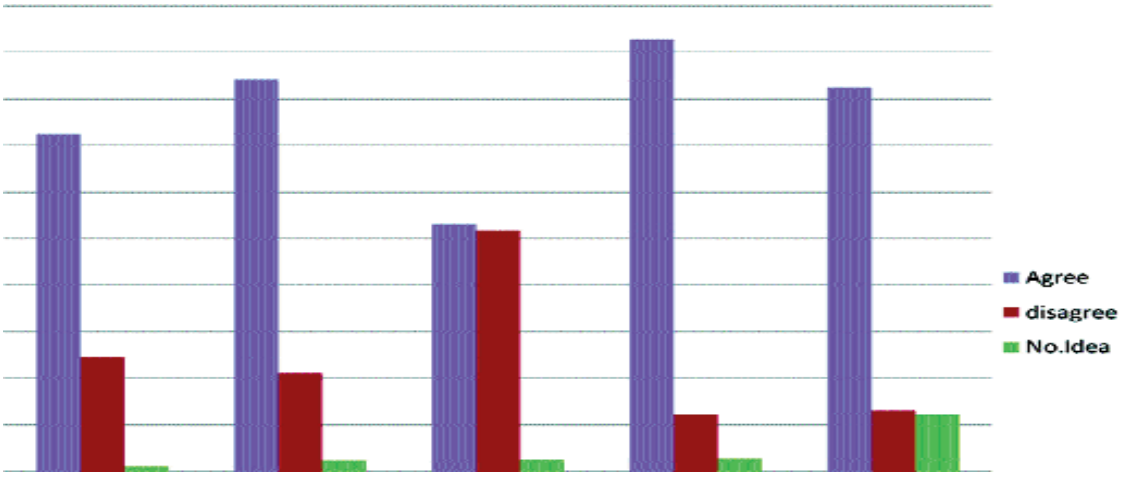


Figure-1: Students' satisfaction on the lectures being delivered.

Students' response was obtained regarding various aspects of lectures, which are delivered to large

groups, including oration, content, explanations given, relevance of the displayed material and the language used. Overall, (71%) students were satisfied with all aspects of lectures (Figure-1).

Majority of the students (56.8%) students favored multimedia as an audio-visual aid to teaching as compared to traditional blackboard teaching and transparencies which were favoured by (34.5%) and (3.4%) students respectively. (73%) students agreed that the teaching staff was punctual in delivering lectures.

Clinical teaching question number 4 was answered by (68.9%) students as 3rd year M.B.B.S. students were excluded. Although (58%) students were satisfied with the teaching in the wards, there was a bit of dissatisfaction about teaching in the OPDs and OTs, with satisfaction rates 30% and 21.8% respectively. Number of students favoring short essay questions (SEQ's), multiple choice questions (MCQs), single best choice (BCQs) and descriptive questions was 209(38.8%), (32.7%), (13%) and (5%) respectively (Figure-2).

As far as the pattern of Objective Structured Clinical Examination (OSCE)/Objective Structured Practical Examination (OSPE) was concerned, (51%) were satisfied and (45%) were dissatisfied with this form of assessment. Majority (58%) of the students felt that the time allowed for OSCE/OSPE was insufficient.

In terms of questions being relevant, (53.7%) students answered in the affirmative. An overwhelming majority (74%) of the students agreed that multiple modes of assessment improve their knowledge and skill. There was disparity in students' satisfaction in internal assessment and university examination. Although (42%) students were satisfied with internal assessment,(37%) were satisfied with university assessment (Figure-3).Three hundred (55.7%) students felt that class attendance and internal assessment should both be taken in to consideration for allowing students to sit in university examination.

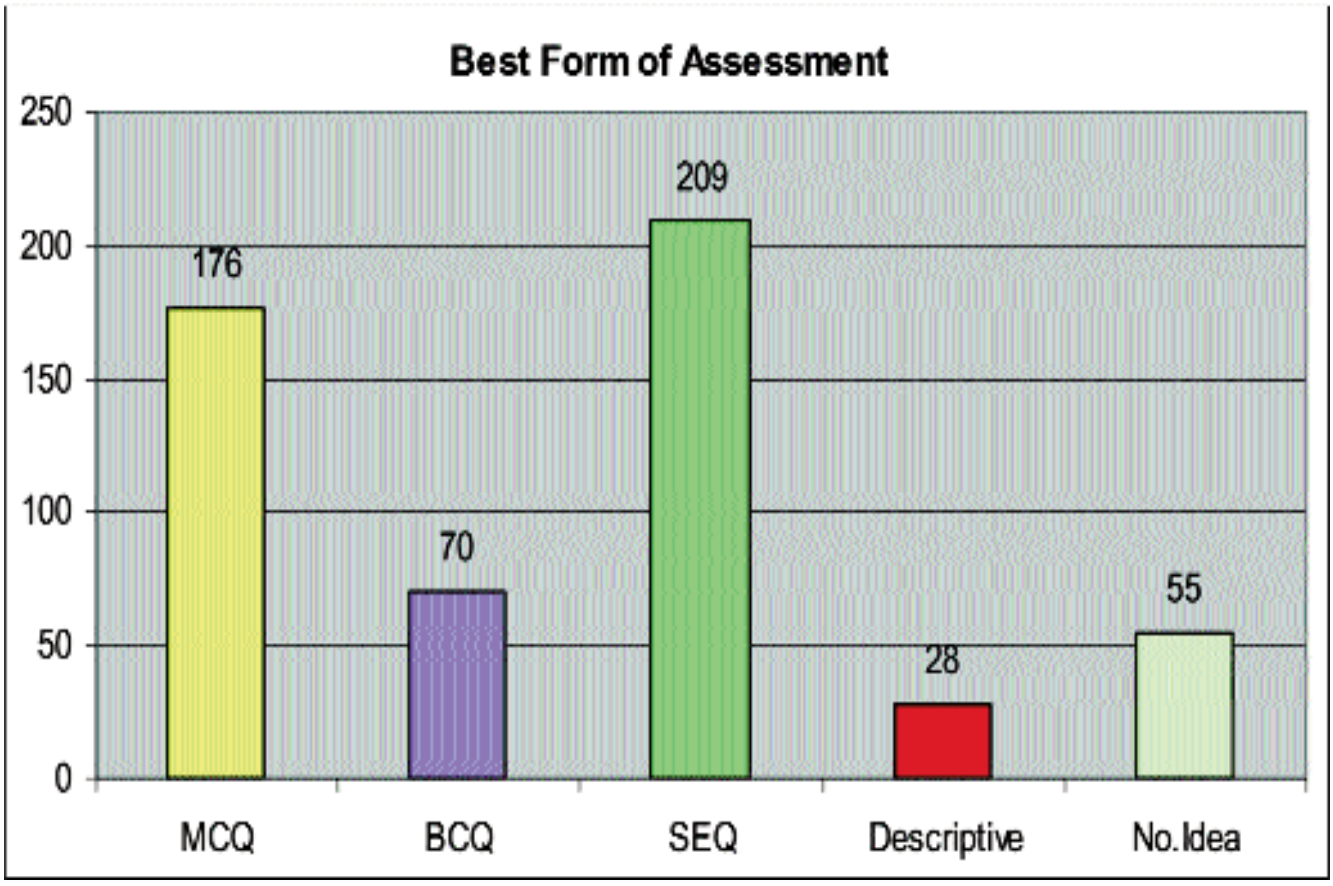


Figure-2: Best form of assessment.

MCQ: Multiple Choice Questions.

BCQ: Best Choice Questions.

SEQ: Short Answer Questions.

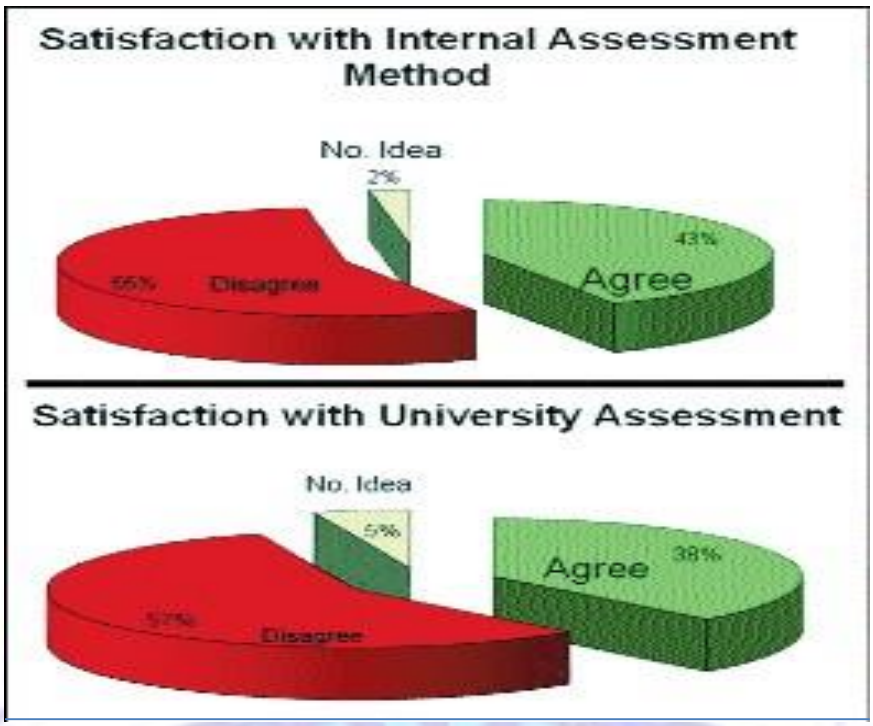


Figure-3: Satisfaction with internal and university assessment.

3.2 Graduating Students assessment

3.2.1 over all Perception about study at KMU

		academic experience at KMU	overall academic experience in department/program	provision of first aid services	Athletic & recreational activities
N	Valid	73	73	73	73
	Missing	0	0	0	0
Mean		4.5890	4.3562	4.2055	4.1781
Std. Deviation		.74229	.75222	.88127	.99083
Variance		.551	.566	.777	.982
Minimum		2.00	3.00	2.00	1.00
Percentiles	25	4.0000	4.0000	4.0000	4.0000
	50	5.0000	5.0000	4.0000	4.0000
	75	5.0000	5.0000	5.0000	5.0000

3.2.2 overall academic experience in department/program

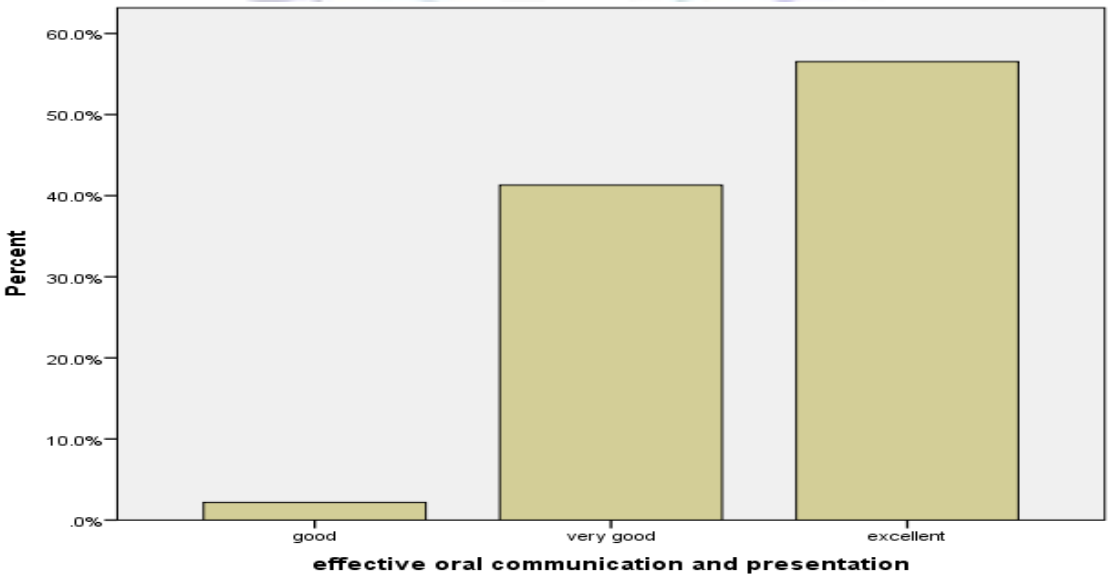
		Frequency	Percent	Valid Percent	Cumulative Percent
	Good	12	16.4	16.4	16.4
	Very Good	23	31.5	31.5	47.9
	Excellent	38	52.1	52.1	100.0
	Poor	00	00	00	
	Total	73	100.0	100.0	

3.2.3 Athletic & recreational activities

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor	2	2.7	2.7	2.7
	Fair	2	2.7	2.7	5.5
	Good	12	16.4	16.4	21.9
	Very good	22	30.1	30.1	52.1
	Excellent	35	47.9	47.9	100.0
	Total	73	100.0	100.0	

3.2.4 Descriptive Statistics of variables

	N	Minimum	Maximum	Mean	Std. Deviation
Academic experience at KMU/AIMI	73	2.00	5.00	4.5890	.74229
Overall academic experience in Department/program	73	3.00	5.00	4.3562	.75222
Atheletic & recreational activities	73	1.00	5.00	4.1781	.99083
Provision of first aid services	73	2.00	5.00	4.2055	.88127
Intellectual climate of department/program	73	1.00	5.00	4.2466	.82967
Valid N (list wise)	73				



3.2.5 Climate and Support

		academic experience at KMU	overall academic experience in department/ program	provision of first aid services	atheletic & recreational activities	intellectual climate of department/ program	level of support of faculty provided to students
N	Valid	73	73	73	73	73	73
	Missing	0	0	0	0	0	0
Mean		4.5890	4.3562	4.2055	4.1781	4.2466	4.0137
Std. Deviation		.74229	.75222	.88127	.99083	.82967	.99294
Variance		.551	.566	.777	.982	.688	.986
Minimum		2.00	3.00	2.00	1.00	1.00	1.00
Percentiles	25	4.0000	4.0000	4.0000	4.0000	4.0000	3.0000
	50	5.0000	5.0000	4.0000	4.0000	4.0000	4.0000
	75	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000

3.2.6 Early Mentoring and Support

		orientation to help understand the process of completing degree	written set of expectations about academic requirements and expected progress	annual/semester meeting to assess academic progress	research opportunities before student formally commits to dissertation	research facilities (lab,instrumentation,infrastucture)
N	Valid	73	73	73	73	73
	Missing	0	0	0	0	0
Mean		4.7123	4.4110	4.9589	4.6849	4.5753
Std. Deviation		.75424	.92550	.26025	.54966	.55070
Variance		.569	.857	.068	.302	.303
Minimum		1.00	1.00	3.00	3.00	3.00
Percentiles	25	5.0000	4.0000	5.0000	4.0000	4.0000
	50	5.0000	5.0000	5.0000	5.0000	5.0000
	75	5.0000	5.0000	5.0000	5.0000	5.0000

3.2.7 Orientation to help understand the process of completing degree

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor	2	2.7	2.7	2.7
	Good	1	1.4	1.4	4.1
	Very good	11	15.1	15.1	19.2
	Excellent	59	80.8	80.8	100.0
	Total	73	100.0	100.0	

3.2.8 Annual/semester meeting to assess academic progress

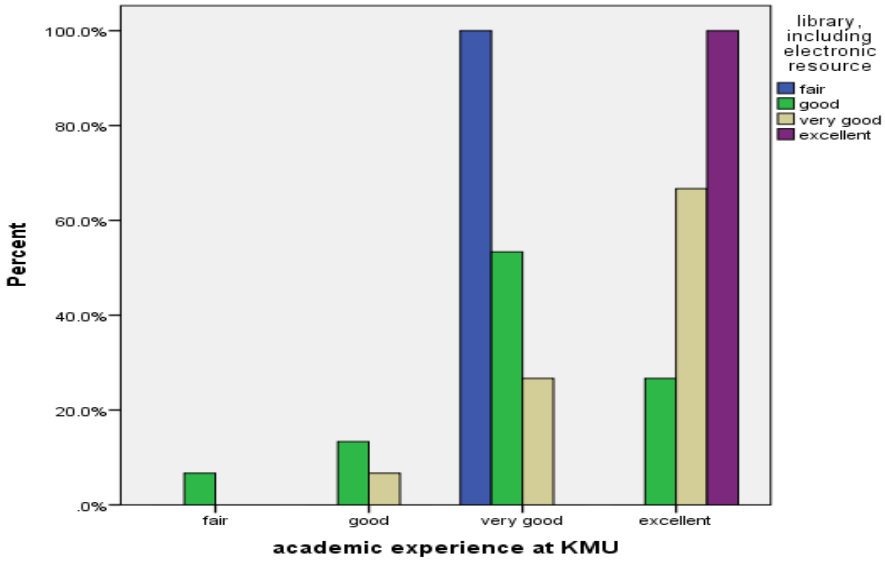
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Good	1	1.4	1.4	1.4
	Very Good	1	1.4	1.4	2.7
	excellent	71	97.3	97.3	100.0
	Total	73	100.0	100.0	

3.2.9 Academic Resources

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Research facilities (lab,instrumentation,infrastucture)	73	3.00	5.00	4.5753	.55070
computer	73	2.00	5.00	4.2877	.85764
Computational facilities	73	2.00	5.00	4.0959	.86866
Library, including electronic resource	73	2.00	5.00	4.0548	.84804
Financial support for graduate education	73	2.00	5.00	4.1781	.78780
Program's curriculum	46	2.00	5.00	3.9783	.93069
coursework	46	2.00	5.00	4.0217	.95427
Teaching by the faculty	46	2.00	5.00	4.0870	.91472
Teaching by the visiting faculty	46	2.00	5.00	4.1957	1.02458
Valid N (listwise)	46				

Fig: Resource perception by Graduate students



Discussion

Extensive changes have been proposed which have been recommended and it has been witnessed taking place globally to improve the standards learning environment of medical education. The concept of medical teaching is changing day by day as the boundaries of knowledge are no longer restricted to text books and lectures. Access to internet, electronic journals, educational videos and online conferences are shifting the concept of traditional lecture-based teaching. Teaching and assessment methodologies have been evolving to achieve the intended goal.

Assessment has been considered an essential part of the health profession education. It provides evidence of how very well the student learning objectives are being met and whether the teaching standards are being maintained. A medical curriculum should constantly develop in response to the need of students, institutions and communities.[5] Student feedback about educational methodologies is a useful basis for modifying and improving medical education. The ultimate aim of such feedback is to identify areas of strength and/or weakness of teaching methodology used so that steps can be taken to rectify the deficiencies and to evolve the curriculum and achieve the intended goal.

The current survey is important because overall majority of students were satisfied with various aspects of lectures being delivered, including oration, content, explanation given, relevance of the displayed material and the language used. Although students were satisfied with the teaching in the wards, there was a significant dissatisfaction with the teaching conducted in the OPDs and OTs. Clearly there is a need to improve clinical teaching in these areas. In the modern era, traditional blackboard teaching method is being replaced by multimedia aids. In the present study, majority of the students (56%) favored multimedia as a supporting teaching tool compared to the traditional blackboard teaching and transparencies. An earlier study also reported a similar trend.[6]

Majority of the students felt satisfied with the pattern of OSCE/OSPE examination that allows clinical skill evaluation in a neutral environment compared to viva voce examination which is viewed by some as biased. However, they felt that time allocated for OSCE/OSPE was insufficient.

There was no consensus among the students on the best form of assessment. Students favoured short essay questions (SEQs), multiple choice questions (MCQs), single best choice (BCQs) and descriptive questions by 38.8%, 32.7%, 13% and 5% respectively. In other reported studies, participants have favoured different assessment forms. In one study,[7] majority of the students supported MCQ-based assessment,[7] while another study reported that students favoured BCQs as the best form of assessment.[6]

Majority (75%) of the students in our study felt that multiple modes of assessment improve their knowledge and skill. Similar findings have been reported by other studies where students suggested a need for multiple modes of assessment rather than a single assessment, which, in their view, could not fulfill assessment of all aspects of students' knowledge effectively.[2,8]

Although the undergraduates were generally satisfied with the questions asked in the written examination and pattern of OSCE/OSPE, their satisfaction on internal assessment and university examination was 42% and 37% respectively. This issue needs consideration by the faculty members and others concerned, and steps should be taken to improve student performance and satisfaction in internal and university examinations.

In addition to answering the questionnaire, students were asked to give suggestions for improving teaching and assessment at AIMI Abbottabad. Most respondents were of the opinion that small-group teaching and short traditional lecture time will improve their teaching. Many students felt that the shortage of qualified teachers in many disciplines was adversely affecting teaching in those areas, and demanded recruitment of qualified teachers in those departments on a priority basis.

Graduating students have been surveyed regarding the overall learning environment at AIMI Abbottabad. Overall academic experience in your department was excellent in 60% of the respondent, while 59% were in an opinion that it was excellent orientation how to complete your degree .An orientation to help you understand the process of completing your graduate degree. While in respect of academic Resources 71% showed that it was excellent at institute.

Limitations.

Only the opinion of those students who were present in the lecture room on the study day could be obtained. The opinion of the students who missed the class might have been different. The students were asked to give the feedback individually, but the presence of peers at the same time may have affected their opinion. We used multiple-choice rating scale to obtain the feedback. This method limits the freedom of answers by the subjects. This was a very small sample from a single medical college and it would be difficult to generalise the results. Further multicentre studies are needed on student feedback and assessment.

Conclusion

Overall, students were satisfied with the lectures and clinical teaching in wards. Preferred methods of assessment included short essay questions (SEQs) and multiple choice questions. Most were satisfied with

pattern of OSCE/OSPE but felt that insufficient time was allowed for it. Although 42% students were satisfied with internal assessment, only 37% were satisfied with university examination. Over all 71 % graduates were satisfied with the environment and facilities provided to them during their completion of degree program.

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