ORIGINAL ARTICLE

Status of Indicators of Quality Enhancement of Academic Program in a medical college, Lahore

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ABSTRACT

Aim: To identify the indicators which enhance quality of academic program in a medical college.
Methodology: A cross-sectional survey was carried out in February, 2019 in a private medical college in Lahore by distributing questionnaires to available MBBS classes which yielded 130 responses, medical faculty members with 51 responses, alumni with 25 respondents and five employers responded. Filled out questionnaires were collected and the relevant data was analyzed using SPSS version 25.
Results: Out of 130 medical students 64(49.2%) strongly agreed that the program was tough and placed a lot of pressure and 69(53%) agreed' that the program effectively increased team work; while 67(51.5%) agreed the program supports learning effectively. Majority of the faculty > 65% were satisfied with the teaching, intellectual stimulation and research facilitation, and >75% were satisfied with interaction with students and colleagues. Majority of alumni and employers were of the opinion that the post-graduation training facilities may be provided in this institution. Another member added that research environment may be inculcated in the organization and discipline of faculty and the students be ensured.
Conclusion: The quality indicators as student and faculty feedback suggested positive academic changes. Alumni and employer academic perceptions suggested improving graduate abilities adopting institutional formal quality processes leads to quality assurance of the medical program. Quality indicators may have multiple applications: for guiding policy makers; to provide stakeholder information sources, assisting providers to conduct initiatives for quality improvement and evaluating impact of such initiatives.
Key Words: Indicators, quality, enhancement, medical

INTRODUCTION

The most significant aim for a society and country is to enhance quality in educational institutions[1]. A process inculcating monitoring, standard setting, resource allocation, evaluation is required in higher education for teaching quality in institutions[2]. There are five criteria for quality enhancement in teaching which are faculty development, active learning, research used in teaching, evidence of scholarship in education and diversity, equality and equal opportunity[3]. Quality assurance programs for traditional nature could not significantly improve total testing process[4]. For professional development, advancement in service and provision of accountability, Quality Assurance Systems are mandatory. Such systems need standards and criteria for evaluation, which are very difficult to establish. With increasing interest of international comparisons involving external evaluation, concerns evolved regarding validity and inappropriate use of different standards and criteria. Because standard and criteria have wide variations in various contexts regarding quality, indicators should be identified and defined firstly which could be considered valid for various locations and countries. Standards and criteria could be derived later on from such indicators[5]. Guidelines and principals are offered for a continuous improvement in the quality of higher education[6]. There is a difference between quality enhancement and quality assurance process[7]. Some countries have developed accreditation as quality assurance mechanism which should focus upon outcome instead of process and structure[8,]. The indicators have multiple applications like consumer information source; helping policy makers and assisting quality improvement providers in evaluation of their efforts[9]. The study helped assessing status the indicators that enhance quality of the medical program. This will help to work out strategies to bring required changes in the program to impart quality education.

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METHODOLOGY

A cross-sectional study was carried out in February 2019, by distributing validated questionnaires (developed by Higher Education Commission of Pakistan and distributed to the medical and dental colleges by University of Health Sciences Lahore under its program of implementation of quality assurance mechanisms in its affiliated colleges) to MBBS students (130), teaching faculty; Assistant professor, Associate professor & Professor (51), alumni doing house jobs (25) and employers (5). The questionnaires focused on items relating to stress of studies, teamwork, administrative support, communication and analytical skills development, research and intellectual stimulation,

colleague's interaction, mentoring, job stability, overall academic environment. Filled out questionnaires were collected and the relevant data was analyzed using SPSS version 25.

RESULTS

Results of each category have been presented as frequencies in the following tables.

Indicators items related to students: Results of indicators of quality enhancement related to medical students showed that majority of respondents' were; in strong agreement that medical was a stressful program, however this program increased teamwork effectiveness, analytical and independent thinking and effective development of communication skills (Table 1)

Indicators items related to teaching faculty: Results of indicators of quality enhancement related to teaching faculty (Assistant professor, Associate professor & Professor) showed that majority of the faculty members were satisfied with the majority of items contained in the indicators. However majority of the staff was not satisfied over indicators items related to their carrier progression, pays and stability of the jobs (table 2).

Indicators items related to Alumni: Majority of the alumni rated either excellent or very good to indicators items contained in the facets of knowledge, communication skills, interpersonal skills, and work skills (table 3).

Indicators items related Employers: Indicator items related to employers (chairperson, principal etc.) were also included in the questionnaire. Responses showed that indicator items related to knowledge, communication skills, interpersonal skills & works skills were excellent or very good (table 4).

Table 1: Student Responses (n= 130)

Statements	Strongly Agree	Agree	Disagree	Strongly Disagree
The program w ork puts much pressure and being too heavy.	64 (49.2%)	50 (38.46%)	16 (12.30%)	0 (0%)
The program being effective in increasing team-w ork abilities.	27 (20.8%)	69 (53.0%)	30 (23.1%)	6 (4.6%)
Administration of the program supports learning effectively.	19 (14.6%)	67 (51.5%)	38 (29.2%)	6 (4.6%)
Problem solving and analytic skills development is effectively achieved by this program.	28 (21.5%)	66 (50.8%)	30 (23.1%)	6 (4.6%)
Independent thinking development is effectively achieved by this program.	42 (32.3%)	63 (48.5%)	20 (15.4%)	5 (3.8%)
Written communication skills development is effectively achieved by this program.	18 (13.8%)	84 (64.6%)	20 (15.4%)	8 (6.2%)
Planning abilities development is effectively achieved by this program.	25 (19.2%)	78 (60%)	22(16.9%)	5(3.8%)
Mathematical content of program is sufficient to pursue advance courses in this program.	20(15.4%)	67(51.5%)	30(23.1%)	13(10%)

Table 2: Faculty Responses (n=51)

Statements	Very Satisfied	Satisfied	Neutral	Dissatisfied	Very Dissatisfied
Your mix of community service, teaching and research	3 (5.8%)	29 (56.9%)	17 (33.3%)	2 (3.9%)	0 (0%)
Your intellectual stimulation	2 (3.9%)	33 (64.7%)	10 (19.6%)	5 (9.8%)	1(1.96%)
Type of current research and teaching you do.	7 (13.7%)	18 (35.3%)	8 (15.7%)	18 (35.3%)	0 (0%)
Interaction w ith your students	19 (37.3%)	17 (33.3%)	12 (23.5%)	1 (2.0%)	3 (5.9%)
Colleagues cooperation you get	23 (45.0%)	20 (39.2%)	7 (13.7%)	1(1.96%)	0 (0%)
The mentoring available for you	11(21.6%)	28 (54.9%)	10 (19.6%)	2 (4.0%)	0 (0%)
Departmental administrative support	13 (25.5%)	21(41.2%)	13 (25.5%)	3 (6.0%)	1 (2.0%)
Provision of clarity of the promotion process of faculty	0 (0%)	18 (35.3%)	18 (35.3%)	8 (15.7%)	7 (13.73%)
Your prospects through ranks and progress for advancement	2 (2.9%)	16 (31.4%)	20 (39.2%)	7 (13.7%)	6 (11.8%)
Compensation and salary package	1 (1.96%)	13 (25.49%)	24 (47.0%0	7 (13.7%)	6 (11.8%)
Stability and the job security at department	4 (7.8%)	17 (33.3%0	23 (45.1%)	6 (11.8%)	1 (2.0%)
Amount of the time for your family and yourself	6 (11.8%)	30 (58.8%)	12 (23.5%0	3 (5.9%)	0 (0%)
Overall climate of your department	15 (29.4%)	24 (47%)	12 (23.5%)	0%	0%

Table 3: Alumni Responses (n=25)

Statements	Excellent	Very good	Good	Fair	Poor
Knowledge					
Science, Math and Engineering skills	3(12%)	21(84%)	1(4%)	0(%)	0(%)
Problem solving skills and their formulation	6(24%)	16(64%)	3(12%)	0(%)	0(%)
Collection and analysis of appropriate data	7(28%)	10(40%)	8(32%)	0(%)	0(%)
Ability for linking theory towards practice.	4(16%)	11(44%)	10(40%)	0(%)	0(%)
Capability of designing system component and process	8(32%)	11(44%)	6(24%)	0(%)	0(%)
Knowledge of computer	5(20%)	16(64%)	4(16%)	0(%)	0(%)
Communication skills					
Verbal communication	4(16%)	14(56%)	7(28%)	0(%)	0(%)
Report writing	6(24%)	13(52%)	5(20%)	0(%)	0(%)
Presentation skills	5(20%)	12(48%)	8(32%)	0(%)	0(%)
Inter personal skills					
Ability of team work	2(8%)	18(72%)	5(20%)	0(%)	0(%)
Independent thinking	10(40%)	10(40%)	5(20%)	0(%)	0(%)
Ethical values appreciation	4(16%)	14(56%)	7(28%)	0(%)	0(%)
Professional development	7(28%)	11(44%)	7(28%)	0(%)	0(%)
Work skills					
Time management skills	4(16%)	18(72%)	3(12%)	0(%)	(%)
Judgment	7(28%)	13(52%)	5(20%)	0(%)	(%)
Discipline	11(44%)	12(48%)	2(8%)	0(%)	(%)

Table 4: Employer Responses (n=5)

Statements	Excellent	Very good	Good	Fair	Poor
Knowledge					
Science, Math and Engineering skills	5(100%)	0(0%)	0(0%)	0(0%)	0(0%)
Problem solving skills and their formulation	5(100%)	0(0%)	0(0%)	0(0%)	0(0%)
Collection and analysis of appropriate data	4(80%)	1(20%)	0(0%)	0(0%)	0(0%)
Ability for linking theory towards practice.	3(60%)	2(40%)	0(0%)	0(0%)	0(0%)
Capability of designing system component and process	4(80%)	1(20%)	0(0%)	0(0%)	0(0%)
Knowledge of computer	3(60%)	2(40%)	0(0%)	0(0%)	0(0%)
Communication skills					
Verbal communication	3(60%)	2(40%)	0(0%)	0(0%)	0(0%)
Report writing	3(60%)	2(40%)	0(0%)	0(0%)	0(0%)
Presentation skills	3(60%)	2(40%)	0(0%)	0(0%)	0(0%)
Inter personal skills					
Ability of team work	4(80%)	1(20%)	0(0%)	0(0%)	0(0%)
Leadership	4(80%)	1(20%)	0(0%)	0(0%)	0(0%)
Independent thinking	4(80%)	1(20%)	0(0%)	0(0%)	0(0%)
Motivation	4(80%)	1(20%)	0(0%)	0(0%)	0(0%)
Reliability	4(80%)	1(20%)	0(0%)	0(0%)	0(0%)
Ethical values appreciation	5(100%)	0(0%)	0(0%)	0(0%)	0(0%)
Work skills					
Time management skills	5(100%)	0(0%)	0(0%)	0(0%)	0(0%)
Judgment	5(100%)	0(0%)	0(0%)	0(0%)	0(0%)
Discipline	5(100%)	0(0%)	0(0%)	0(0%)	0(0%)

DISCUSSION

There are many challenges for quality enhancement in teaching and learning[10]. A study by Gawaramadze et al showed that leaning assessment in students is significant component[11]. The majority of the students 64 out of 130(49.2%) strongly agreed that the program was very heavy and put lot of pressure. Most of the students 69(53%) agreed that the program was effective and increase the team work; while 67(51.5%) also committed that the program was supportive for effective learning. Eighty-four (64.6%) students agreed that the program has improved their written communication skills. The majority of the students also agreed that the program improved their independent thinking planning abilities and is very beneficial and sufficient to pursue advance courses in this field. The student's responses show various areas which can be analyzed to enhance quality of the academics. Some countries have developed accreditation as quality assurance mechanism which should focus upon outcome instead of process and structure[8]. Quality assurance indicators could also be developed regarding public health medicine[5]. Information retrieved out of electronic data bases for administrative purpose can be used as marker related to issues of quality monitoring in hospitals[12]. Higher education quality issues like performance indicators, value added, fitness for purpose, peer review, academic audit and total quality management are discussed in a research study which grappled with student experience, transferable skills, critical thinking, skills in curriculum and the concept of reflective practitioner[13]. Traditional quality assurance programs could not significantly improve testing process, thereby, by finding solutions of quality system can provide with a systematic approach to improve performance[8].

The responses of 29 (56.9%) faculty members showed they were satisfied about the blending of community service, teaching and research in their department. Thirty-three (64.7%) teachers were satisfied about their intellectual stimulation. Nineteen (37.3%) of the faculty was very satisfied about the interaction with their students; while 23(45%) were very satisfied about their cooperation with the colleagues. Faculty as a quality indicator adds to high pinnacles which have vastly varied impact on the administration as well as academic quality. Twenty-one (41.2%) were satisfied with the administrative support in the department; while 24(47%) were satisfied about the overall academic environment of their department. Thirty (58.8%) of the faculty members were satisfied that they had a good amount of time for their self and the family. About the promotion, compensation and salary package, and stability and security of job their responses were neutral, which may indicate hesitation on responding to such issues, even though anonymity was practiced while collecting data. Student feedback suggesting positive changes, perceptions of employer to improve graduate abilities, adopting institutional formal quality processes and improving such quality or performance indicators do have impact[12]. The indicators may have multiple applications like it can be a stakeholder information source; can help policymakers and may assist quality improvement providers in evaluation of their efforts[4]. Because standards and criteria have wide variations in various contexts regarding quality, the indicators should be identified and defined firstly which could be considered valid for various locations and countries. Standards and criteria could be derived later on from such indicators[14]. To assess performance using Kappa statistics schemes of quality assurance should either use large population samples which is usually impractical or some other methods like weighted outcomes may be required[15]. Gaps between research and policy on quality have also been identified demanding empirical research at school and classroom level suggesting strategic areas of quality enhancement at school level[16].

The responses of the questionnaires of alumni 21 out of 25, (84%) showed their response about the program being very good. Majority of the alumni responses for problem solving, data collection and analysis and computer knowledge was a very good about the academic program. The majority (56%) gave their opinion about verbal communication, report writing and presentation of skill very good, as well as interpersonal skills and work skills were very good in the academic program. However, majority of the alumni were of the opinion that the post-graduation training facilities may be improved in the institution. Highlights are available for distant education aspects that markedly differ from traditional approaches to achieve quality assurance[17]. Careful use of quality indicators and adherence with improved guidelines can address substandard clinical outcome[18]. The American College of Obstetricians and Gynecologists has recently published fifteen indicators of quality assurance in gynecology[19]. Similarly in 1989, members of American Pathologists designed and implemented first quality assurance program for laboratory and pathology at country level.[20] Quality demands thresholds of an indicator to decide between what is good or not and how to improve. These thresholds should be realistic and dynamic as well as feasible. Literature to establish such specific thresholds was limited exuding an uncertainty about the use of terms like norms, standards, criteria and indicators[21].

The employer questionnaires showed 5 out of 5, (100.0%) that the program regarding knowledge levels and problem-solving skills was excellent. About 60%-80% of the employer responded that communication skills, interpersonal skills and work skills of the graduating students, faculty and employer were excellent. Four of the member employers were of the opinion that the facilities for post-graduation training should be looked into. One member suggested the classroom facilities; multimedia and air-conditioned facilities of the lecture halls should be improved. Another member added that the research environment may be inculcated in the organization and discipline of the faculty members and students may be ensured. Therefore as requesting test to sample results, similarly, quality indicators should cover all steps in pre-analytical phase[22]. Quality is part of integrity in a community of caring[23]. Indicators were also identified with their threshold values for clinical practice for gastrointestinal procedures like colonoscopy.[24] Measures of quality assurance with indicators of key performance have been developed by British Society of Gastroenterology for nationwide delivery of colonoscopy procedures in UK[25]. An article emphasized on current trends in quality assurance measure in European Higher Education area[7].

CONCLUSION

Overall status of indicators of quality enhancement for academic program was quite satisfactory, however majority of the medical faculty was not satisfied over indicators items related to their carrier progression, pays and stability of the jobs.

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