An Overview of Total Quality Management at King Abdel Aziz University College of Medicine

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INTRODUCTION

Rationale of quality in higher education: Dramatic changes in the education scene began taking place in the 1980s. There was a striking growth, worldwide of participation in higher education with the advent of Information age with its huge and rapid growth in knowledge. The growth of places in the universities increased at rates >10% per annum. A growing participation of non-traditional students, e.g., those aged 21 and over, also increased at a phenomenal rate. With the galloping demand, the segregation that the governments had maintained. The great 'binary divide' between technical institutions and higher education, came under enormous strain. Many countries caved in to the pressures and granted the same status of a university to all these institutions a unified system of higher education.

These dramatic changes in the composition of universities prompted the governments to look more closely at the issues of control and at outcomes in terms of the employability graduates. With the arrival of the knowledge based economy, universities were expected to play apart in the shaping of the new mould of education for the community (De Alva, 1999).

Total quality management in KAU college of medicine began in 2000. A committee was formed to put the rules of TQM which included faculty members from different fields (both basic science and clinical). One of the most important jobs of this committee was to assess the current state of education in KAU College of Medicine.

Disadvantages of TQM in higher education: Application of TQM in higher education is concerned, there are serious problems identified with its adoption: application of TQM in higher education is concerned, there are serious problems identified with its adoption.

In TQM the processes are supposed to be customer driven. In higher education the critical problem is identification of the customers or products to drive towards. The customers can variously be students, employers, government etc. and in the same way the products can also be education, knowledge, research etc. This creates a considerable lack of focus for the groups involved with the processes.

With its measurement and process focus, TQM makes an implicit assumption that the processes are amenable to measurement. On the other hand many processes in education are too subtle to be measured. The more important the knowledge is the less likelihood there is of ever noticing it (Bowden and Marton, 1998).

In addition, the main tenet of effective communication required within a university for TQM implementation is rarely reached. There is rarely a shared vision and the academic managers in an attempt to retain power act as communication block. The participation in decision making at all levels rarely ever takes place. Those with power continue to retain it (Bramble, 1996).

Quality assurance and continuous quality improvement: There is a notable improvement in quality inside the faculty of Medicine in the past few years. Recently a Vice Deanship for Quality and development has been established. Moreover, a detailed strategic plan with a timed operational plan has been finalized. These include 50 projects to improve the quality and develop the educational environment in the faculty of medicine. There is a desire to set a quality assurance system in the faculty. Preparation for that is going on and will take a year to complete.

The aim of the committee responsible for TQM in KAU was to assess and improve the performance in relation to generally accepted standards of good practice and identify areas for improvement.

The faculty of medicine is preparing to benchmark its performance against the standards of Liaison of Commission for Medical Education (LCME); this will be starting soon and will help the faculty to establish

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their own indicators. Lack of indicators that provide clear evidence of quality of performance in achieving objectives. Lack of benchmarks for comparing quality of performance. Self-assessments of quality of performance are not checked against related evidence including feedback through user surveys and opinions of stakeholders such as students and faculty, graduates and employers.

One of the most important tasks of this committee was to establish clear mission and objectives that reflect a real change in the KAU college of medicine towards application of TQM.

Faculty mission and goals

Mission: To promote knowledge of human life processes, both in health and illness in order to serve the community by teaching and training health professional in the art of prevention and treatment of diseases.

Goals:

- Teaching and training of students, physicians, nurses and other health professionals in the field of medicine and allied medical sciences
- Promoting preventive health behavior in the community
- Providing high quality health care services at the primary till tertiary level
- Establishing and maintaining excellence in research related to health and disease
- Developing student's ability of self-learning, analytical thinking and problem solving
- Focusing attention on local diseases and environment
- Qualifying doctors and other health professional to practice their duties in accordance with Islamic ethics and laws
- Training high caliber leaders in the health specialties to play appropriate roles in serving the society
- Contributing to the wide dissemination of health information
- Providing advanced consultation services in medicine and medical sciences
- Participating in the writing, translation and publication of knowledge in the medical field

General educational objectives:

- Relate ethically to Islamic values and cultural heritage
- Acquire essential knowledge and skills for primary health care
- Attain a level of independent learning so as to pursue graduate studies
- Perform essential bedside and basic surgical procedures

- Acquire positive attitudes towards patients and other members of the health team

The strategic plan in KAU College of medicine: Total Quality Management (TQM) is syntheses of well-known management practices aimed at creating an organizational culture where every one will work contribute to overall quality of the products and services. Although, Deming's original 14 points tend to be an important guide, many Western masters, like Crosby, Peters etc. provided a substantial slant in emphases, followed by a large group of Japanese masters like Ishikawa, Shingo and Taguchi etc. Hence, TQM remains a very rich field for potential management practice.

There is a broad field for inspiration and guidance. More recently, many countries have instituted national quality awards e.g., Malcolm Baldridge Quality Award (US) which encapsulate these principles of TQM into measurement oriented frameworks of management practices which are available for any organization to seek some guidance from. Generic Elements of TQM (Harvey, 1995).

The Curriculum Development Task Group (CDTG) and the Faculty Curriculum Committee (FCC) at the FOM of King Abdul-Aziz University share in putting the strategic plan of KAU College of medicine. It described all the activities that were carried out by the CDTG over the 2 years period during which a strategic objective was formulated and stated as to develop and improve on the quality of teaching and learning environments of the FOM in relation to: curriculum reforms and development, students support, staff development, development of resources and facilities and high quality health care provision to the community. Such strategic objective was proposed to be achievable by the end of 1430 H, though 12 proposed strategies:

Strategy 1: Continuing to develop program specifications that will reflect curriculum reform in relation to:

- Core curriculum contents and burden of factual information
- Horizontal and vertical integration
- Introduction of system-based modules
- Introduction of medical genetic and clinical humanities courses
- Introduction of special study module and electives
- Student learning outcomes
- Teaching and assessment methods

Strategy 2: Extending structured clinical and communication skills development in medical students to increase their clinical ability and competence upon graduation.

Strategy 3: Fostering a desire for lifelong self-learning skills in medical students in relation to:

- Learning through curiosity
- Exploration of knowledge
- Critical evaluation of evidence

Strategy 4: Providing appropriate academic and pastoral support for medical students throughout the phases of the curriculum. To ensure attributes appropriate for future responsibilities to patients, colleagues and community in general.

Strategy 5: Refine in the management and supervisory structure that support learning and teaching, to enable the FOM to monitor goals, objectives and targets and to ensure that they are met, including using the outcomes of internal and external review procedures to enhance the quality of both learning and teaching.

Strategy 6: Ensuring continuous financial support from sources other than the University pool by supporting the expansion of:

- Private health services at KAU Hospital
- Parallel medical education programs
- Postgraduate and training programs
- Research and consultative projects and activities
- Endowments
- Donations and alumni support

Strategy 7: Encouraging academic staff at all levels to demonstrate excellence in learning and teaching as well as in research and to take advantage of opportunities for continuing professional development in their specialty.

Strategy 8: Providing generic and specific training in learning, teaching and assessment for all new teaching staff through a structured medical education program.

Strategy 9: Strengthening external review procedures to maintain consistency of the reporting process and to safeguard academic standards.

Strategy 10: Maintaining links with appropriate local, national and international bodies to enable academic staff to take advantage of specific developments in learning, teaching and assessment.

Strategy 11: Adopting a faculty-wide approach to evaluating student's satisfaction through feedback mechanism with the learning experience at the level of curriculum and the learning environment.

Strategy 12: Continuing the development in the college of medicine to:

- Enable a more creative and appropriate use of technology in learning, teaching and assessment
- Reflect the needs of the students throughout the curriculum
- Streamline some of the related administrative tasks to decrease the burden on academic staff

There is a clear focus on student experience. Transformative learning requires a transparent process, which is integrated, contributing to a rich and relevant Total Student Experience. Transparency means openness about the aims, processes and method of attainment of learning byte student. Integration means that such experiences are linked together into a cohesive whole. Learning is based on a dialogue between participant and providers. Dialogue involves the discussions between learners and teachers about the nature, scope and style of their learning. Dialogue also requires a dynamic exchange among the teachers about the teaching and learning process (Harvey and Knight, 1996).

Exploration of the current state regarding TQM in KAU Initial work planning: An announcement was made during the faculty board meeting, by the Dean, informing faculty (head of departments and vice deans) about the self-study and anticipated external review and the need to provide input especially on the standard relating to learning and teaching by all the departments.

A committee was formed to undertake the self study. Members of the committee included faculty members from different departments both clinical and basic science some of whom had occupied key administrative jobs in the college (dean, vice dean).

Letters issued by the dean were sent to all head of departments to co-operate with the committee and provide the information needed whenever approached.

Distribution of work: The process of review included examining and completing the rating scales in the Quality Standards for Post Secondary Institutions. The 11 standards were subdivided into 3 related groups and each group of standards was allocated to 3 members of the committee (sub-committees) to study and complete. Several meetings between the members of the sub-committees took place before the final conclusions were reached.

Source of information: The main source of information for the evaluation of the different standards was mere analysis and judgment of the self-study committee. These are faculty members who are or were in charge and

knowledgeable in that specific aspect so it is more of an educated judgment and not just an ad hoc impression.

For standard 4 (Learning and Teaching), we made use of the questionnaires that were designed by the Learning and Teaching sub-committee of the Pilot Project for Institutional Accreditation that was conducted in November 2006.

Questionnaires inquiring about good practice in Learning and Teaching (standard 4) that were designed by the self-study piloting committee included three questionnaires. Student's questionnaires, Faculty member questionnaires and Head of department's questionnaires.

The final rating for standard 4 depended on questionnaire feedback, brainstorming sessions and results of group discussion of faculty members in the college.

Performance evaluation in relation to quality standards
Central activities
Mission and objectives:
- The objectives of the program are consistent with and support the mission of the college and to some extent guide decision making within the program
- Objectives do not include levels of performance on appropriate performance indicators
- Level of performance lacks internal and external benchmarking

Governance and administration:
- The terms of reference and operating procedures for major committees and administrative positions associated with the program are not clearly specified, sometimes vague and are not regularly reviewed
- Policy manuals and codes of conduct for major functions are out of date and need to be reviewed.
- Decisions made by committees on procedural or academic matters change a lot with changing key personnel

Learning resources:
- Planning and evaluation processes that govern the provision of learning resources are not efficient and needs to be improved
- Libraries are not available outside regular teaching hours for students and usually close at the end of the working day. The central library in the male campus is open on Thursdays for use by females
- There is limited student access to on-line data-bases and research and journal material
- Orientation and training programs are not provided for new students to prepare them to access facilities and services
- Although, assistance for users in conducting searches and locating and using information is available nevertheless it is not evaluated

- Limited inter-library loan facilities
- The adequacy of books, journals and other reference material to meet program requirements is not assessed
- Up to date computer technology is available but whether it is sufficient for program requirements is not assessed and there is underutilization of these resources by the students

Facilities and equipment:
- Facilities and equipment planning are not efficient and emerging needs are not anticipated
- The use of facilities is not monitored and there are no clear processes to ensure that underutilized facilities are made available for alternative uses
- Maintenance provisions are not effective since there are no routine maintenance schedules
- Technical support is not available in case of equipment breakdowns and the importing company should be contacted in that case to fix the problem.

Financial planning and management:
- No regular procedures are in place to establish financial priorities and planning
- There is a desire to establish effective delegation processes, red-tapes and lack of reward Band-accountability culture and system prevent further improvements

Faculty and staff employment processes:
- Employment processes do not ensure that faculties recruited have the special knowledge and experience needed for their teaching responsibilities and their qualifications and experience are not verified before appointment.
- New faculty receive detailed information about the program and course requirements before appointment and are thoroughly briefed about their roles in the teaching team before they begin. This should include course specifications for the principal courses they will be expected to teach and the relationship of these courses to other courses in the program, together with the program specification. Constructive feedback is given on teaching performance and assistance given in improvements if required. Outstanding performance recognized. Effective mechanisms are used to assist faculty to remain up to date with developments in their field.

Research: There are adequate laboratory space and equipment, library and information systems and other necessary resources to support the core research activities of faculty. King Fahd Research Center is a good example.

Institutional relationships with the community:
- Relationships with other hospitals (e.g., ministry of health) are established to assist program delivery in the clinical years
- Some contributions to the community are made that include activities carried out by some faculty members e.g., general awareness lectures at schools but activities are not documented

Internal activities
Learning and teaching
Student learning outcomes:
- Although, theoretically speaking, the intended learning outcomes are consistent with the National Qualifications Framework and with requirements for professional practice in Saudi Arabia, no evidence could be found of student achievement relative to the Qualifications Framework or to other comparable institutions
- Benchmarking with comparable national or international institutions does not exist
- Graduates and employers from most departments are not contacted and surveyed to give their feedback on the program and contribute to the reform of the program outcome

Educational assistance for students:
- Office hours are allocated by the faculty members and are made explicit for the students but there is no process to assess the commitment of the faculty members to these hours and their effectiveness in providing sufficient educational assistance
- About 56% of the students surveyed reported that assistance does not exist
- A system is available in the parallel program for provision of scholarships and grants for high achieving students

Quality of teaching:
- The overall assessment for this standard was one star due to the lack of quality methods to assess and monitor the effectiveness of teaching in the faculty
- Faculty teaching is not regularly assessed in student surveys
- The effectiveness of teaching strategies used across courses to develop the range of learning outcomes in different domains is not well assessed

Supports for improvements in quality of teaching: Although, opportunities are provided for professional development of faculty in relation to teaching quality, however, there is no system to ensure that those faculty members in need for such training are attending the available workshops.

Qualifications and experience of faculty:
- The college does not lack highly qualified and experienced faculty members and hence the better scoring in this standard compared to others
- Not all faculty members are involved on a continuing basis in scholarly activities and research in the fields of study they teach

Program development and review processes: The curriculum of the Faculty of Medicine was a typical traditional curriculum. It was departmental based, where separate courses and modules were taught by each department.

In 2003, a new innovative curriculum was designed as a result of a structured Strategic Plan of the Faculty of Medicine. This movement was due to the intention to improve the educational environment inside the Faculty of Medicine. The new curriculum of the Faculty of Medicine was designed to emphasize the following concepts:

- System-based approach
- Vertical and horizontal integration
- Early clinical exposure
- Central B governance rather than department B based teaching
- Providing student support

New program proposals or proposals for major changes are documented in program specifications and formally assessed and approved or rejected by the institution's senior academic committee (this is true of the new integrated curriculum).

Course portfolios are well established in all departments as evidenced by the AAU visit to FOM but courses are not regularly evaluated and adjustments are not always made as required and the section on instructor reflection on the course is missing in most portfolios.

Comprehensive program self-study is not done in the FOM and this is the first planned self-study conducted in accordance with the NCAAA standards.

Field experience activities: This may be only applicable to the field studies done in the Family and Community medicine department for 4th year medical students. The department's evaluation for this standard was 4 stars and the head of department was contacted to inquire about

the quality methods used to assess this standard. The availability of documents with learning outcomes, roles of students and supervising staff and student evaluations were claimed.

Student administration and support services:
- Information about program requirements and criteria for admission is available for prospective students on the internet
- Assistance prior to the student registration process is lacking. However, after registration there is a comprehensive orientation program for the new students
- Rules governing admission with advanced standing within the program are clearly specified
- No automated procedures for monitoring student progress and there is no clear rules governing privacy of information and controlling access to individual student records
- Results are finalized, officially approved and communicated to students within one month of completion of course requirements
- Eligibility for graduation is formally verified in relation to program and course requirements
- There are no student appeal and grievance procedures
- Policies and procedures are in place to deal with academic misconduct, including plagiarism and other forms of cheating but they are not evaluated or monitored

Pro and cons of the quality management of FOM of KAU:
Like any other program, this one has some strengths as well as weakness.

Some strengths of the program:
- Faculty of Medicine (FOM) goals and objectives reflect desired outcomes in terms of graduate's knowledge, skills, attitudes and values
- Highly qualified staff members with expertise and enthusiasm which will enrich the learning environment
- Availability of a dedicated "Medical Education Unit" in the FOM
- Well-established infra structure of the FOM and KAU Hospital to expand on the learning environment (e.g. hospital beds, laboratories, lecture theatres, etc.)
- Establishment of the Networked Learning Environment (NLE) in the FOM including IT laboratories in various departments

- Establishment of the Clinical Skills Laboratory (CSL) in the FOM

Some points of weaknesses exist in the FOM of KAU:
- Due to time restriction the committee depended on the expert opinion instead of looking for key performance indicators as evidence of good practice. Despite the fact that this is not the ideal approach, the outcome was quite realistic and satisfactory. There are major problems in all areas of the faculty activities due to lack of documentation, evaluation and monitoring of these processes. Many of the good practices were performed in a sporadic fashion with no system for monitoring or evaluation
- High attrition rate by students throughout the program
- No record of progress and achievements of medical students after their graduation
- Increased student numbers without corresponding increase in teaching and learning resources
- Inadequate use of newly available teaching/learning technologies in the teaching/learning processes
- Very limited feedback from teachers to students on their academic performance
- No system to assess the delivery and the quality of teaching or appraisal of teaching activities except for individual efforts
- Lack of communication between departments, hospitals, faculty administration and faculty staff members

As the researchers' point of view, weakness may delay or obstruct the way of adequate quality management.

CONCLUSION

A quality assurance system is not in place and is a major requirement if accreditation is sought in the near future. Quality assurance processes should be designed to ensure that acceptable standards are met and that there is continuing improvement in performance. Lack of documentation is a major problem in many of the activities done in the faculty. Many of the good practices were performed but they lacked documentation, monitoring and evaluation.

Many of the good practices were also noted to be done in a sporadic fashion by certain departments (and even by some faculty members in the same department

e.g., student evaluation of the quality of teaching) rather than a centralized common practice that is followed by all the departments.

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