



ADEE/DentEd Site Visit

To

**Faculty of Dentistry
King Abdul Aziz University
Jeddah
Saudi Arabia**

27th September – 3rd October, 2005

Written report of the ADEE/DentEd Site Visit to the

Faculty of Dentistry King Abdul Aziz University Jeddah Saudi Arabia

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Visitors

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Professor Elizabeth S Davenport	United Kingdom	(Rapporteur)
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Prologue

The ADEE/DentEd visitors wish to extend their heartfelt thanks to the Faculty of Dentistry and in particular to the Dean Tarek Al Khateeb for allowing us to undertake this site visit. We wish to thank the staff and students of the Faculty of Dentistry for their openness and hospitality during our stay. All the visitors were impressed with the conduct of the faculty. There was tremendous enthusiasm and willingness to assist fully in the Site Visit process. This was seen throughout the whole faculty and extended to the staff of the University. The visitors were impressed by the amount of work that had taken place to prepare for the visit and the school was fully involved with the whole process. The self-assessment document was detailed and informative. It was well written and provided the required background to the site visit. This document served its purpose well as it stimulated much discussion during our visit and the authors must be congratulated on its thoroughness. The interest generated by our discussions was far reaching and this report can only touch on the subjects that were discussed between the visitors and the faculty. The school is committed to the teaching and learning of the students under their care and the graduate is well prepared for a career in dentistry. The population of Jeddah should be proud that such a well run establishment is present that serves their dental needs and there is full commitment to the care of patients which is to be applauded.

The visit was conducted in a friendly and amicable manner where suggestions to improve an already strong school were well received by the Faculty. This document will provide a general overview of the school under the following sections of the self assessment document

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Section 1 - Introduction and General Description

The King Abdul Aziz University Campus is new and impressive in its facilities. The Dental School is part of the Medical School campus adjacent to the Hospital and provides an excellent learning environment for the students.

The visitors are mindful of the customs and culture of the Kingdom of Saudi Arabia. This is strength of the school as it follows the traditions and examples of Islamic teaching. The school is a champion in this area and is to be congratulated. However it does bring about administrative problems in that there needs to be more co-ordination on group teaching. For instance there is repetition of lectures, as each one has to be delivered twice to each group of male and female students separately. This inevitably brings about an increased workload for staff. It is suggested that the school looks to building a larger lecture theatre where all students may be accommodated. Other suggestions might be to look to using videoconferencing (teledentistry) between the two buildings or to record lectures so that they can be viewed at the convenience of the student via the Internet.

The duration of dental training at KAUFD is six years. The first year comprises English language, Islamic studies, Chemistry, Physics and Biology. The second and third year covers the basic sciences and pre- and para -clinical subjects. The fourth, fifth and sixth years are clinically based. In the sixth year comprehensive clinical care is introduced. Before the graduate is awarded his final BDS degree he must complete an internship year to be permitted to practice. This internship year is seen as a sheltered learning environment and provides a quality check for the young practicing dentist. It includes further experience in Comprehensive Care Clinics and Community Dentistry. An additional Diploma is awarded at the end of this internship.

The visitors felt that the aim of demonstrating *sensitivity and responsibility in responding to the social and cultural needs of individual patients and the community* are being met.

Section 2 - Physical Facilities

Visitors' Comments

The Facilities at the Dental School are excellent. We were impressed with the amount of available space and the general cleanliness within the School. The faculty are considering reorganisation in terms of increased numbers and there are plans for a new building as an extension to the existing facilities. There are very good audio visual facilities and therefore the school is well placed to develop video conferencing to reduce repetition of lectures. The Information and communication technology is well supported by the central IT services. There is an IT Lab with 30 workstations present within both the female and male sections.

The library facilities are exceptional and the main library is fully supportive of the Dental School. Students and staff have access and subscription to a large number of key electronic journals including full subscription to Synergy (*Blackwells*) and Science Direct (*Elsevier*). We were informed that there is a good Library budget which is appropriately apportioned to Faculties, who each have their own libraries.

The Clinical facilities are good and whilst the dental equipment is well maintained there is some wear and tear on cabinets. In radiology both equipment and safety standards adhered to correct guidelines. In addition a radiological manikin is available for teaching and practice. The team, however, was unsure as to the amount of interaction that takes place with radiographers as X-ray machines were readily available on the clinic floors, especially in the enclosed surgeries. The faculty should look to introducing and moving towards a digital system especially if there are plans to initiate the electronic patient record.

Laboratory facilities were impressive and both the Prosthodontics Laboratory (male and female) was well equipped. There were no trained technicians and all teaching delivered by Dental Staff.

The Clinical record keeping facilities were excellent and although paper based at present plans are well advanced to introduce electronic record keeping.

The Comprehensive Care Clinic 600 concept was excellent and the visitors would wish to suggest that this concept is introduced earlier into the course. There is access to sufficient patients and the quality and range of treatments available are in good supply.

Points for Consideration

The school has stated that it is running out of space because of the increase of student numbers. The visitors feel that the school could accommodate more students in the short term with more flexible and imaginative methods of running the curriculum. However in the long term the visitors agree that more provision for students should be made by increasing space especially as the Government is prioritising dentistry provision.

There are no small group teaching room. Such rooms should be provided consider in a future build designed appropriately and equipped for optimal learning and teaching. This build should contain a single use of lecture theatre big enough to accommodate a whole year to avoid repetition of teaching.

The libraries in the Dental School are relatively small and have limited availability of books/periodicals on the shelves. The visitors were unsure about the access and loans length.

Whilst the Specialist CCC 600 is a great strength it is staffed predominantly by specialists. It is suggested that there should be more General Dental Practice support so that the students learn more about the holistic care of their patients.

Recommendations:

1. To continue to plan for new build
2. To optimise space utilisation in the future to facilitate small group and interactive learning
3. To consider timetabling in a more imaginative way to optimise space and student experience. For example utilisation of 'hot cases' by rotation of students into Emergency Clinic.

Section 3 - Organizational and Administrative Structures

Section 3.1 Administrative issues

Visitors' comments

The School is well organised and the administrative structure serves well to meet the needs of the faculty and students. The Dean, Vice Deans and the department heads together form a team dedicated to the success of KAUFU and can be proud of their accomplishments and accessibility. There appear to be committee structures and processes which meet the needs of the faculty and students to have input into the decision making processes such as curriculum issues, course evaluations, feedback for improvement and recognition of exceptional performances. The decision-making processes are very open and again there appears to be a seamless mechanism for collective wisdom to prevail in direction of the school.

There are, however, areas where improvements are suggested and the Dean is currently guiding those activities

The administration and organisation of the Dental School is complex and has recently been adjusted by the Dean influenced by the President of the King AbdulAziz University. There is an overarching Faculty Board chaired by the Dean, where many issues are discussed including curriculum matters. The Members of the Board include all of the Vice Deans, representatives from the Academic Assessment Unit, Scientific departments, Lab Supervisors and the Director of Administrative Affairs. The minutes are the responsibility of the Vice Dean for Academic Affairs and these are submitted to the President of the University, who holds weekly meetings with his Faculty Deans. The Dental School is represented elsewhere in the University on particular committees, for example: social, sports, Islamic, cultural, King Fahed Research Centre, and the Higher Committee for Student's activity [extra curricula]. In addition within the Medical faculty, all Deans meet regularly and the rotating chair is the Dean of the Dental School.

In terms of Quality Assurance in the University and Dental School, there is a Vice President for Quality who is a member of the President's committee and University Council. There is no representative on this committee from the Faculty of Dentistry. Quality Assurance is under review but essentially is the responsibility of individual heads of department and Vice Deans.

Points for Consideration

As mentioned earlier the committee structure appears to be complicated and this needs to be reviewed to make it clearer to an outside observer. Clarity is required about the role of the Academic Assessment Unit and how it impacts on Quality Assurance. There is no committee that provides a link between the Basic Sciences and the Clinical departments.

There is no Academic Registry. It would be helpful if an "administration manager" were appointed to remove some of the administration load from the faculty members. This would leave them free to concentrate on teaching and research.

It is strongly recommended that there is student involvement in all committees as this is not readily present. Committees can incorporate a reserved business agenda at the end of meetings where students are not present.

The admissions system is subject to University control. However there is no chance to interview prospective students to determine suitability until after the entrance examinations have been sat. It was noted that in the Academic year 2005-06, the Government expect all University courses to accept 10% extra students. This will add pressure to the School of Dentistry in the short term whilst it looks to reorganize its teaching and learning in light of the ADEE/DentEd recommendations

Recommendations

1. To review the Committee structure with a view to reorganisation.
2. A Vice Dean for Quality Assurance be appointed
3. Student involvement in curriculum design and committees
4. A strategic plan for research is developed as soon as possible and that this plan addresses the availability of time for research for junior faculty and students.
5. Basic Science and Clinical Teachers work together and exchange ideas informally and in formal committee structure

Section 3.2 Curriculum issues

Visitors' comments

We feel that the school should move away from discipline based teaching and progress towards a modular structure. The introduction of CCC600 much earlier in the course would allow students to slowly develop their competencies from simple tasks to more complex integrated treatment planning.

The curriculum is described in Credit Units, as determined by the University. A credit unit is equivalent to 15 hours of lectures per semester (e.g. 1 hour per week). For Laboratory and clinical aspects, 30 hours of clinical or laboratory time per semester are considered equivalent to one Credit Unit. A Credit Unit therefore refers only to contact hours.

Points for consideration

The length of a dental curriculum in many countries is generally 5 years. Such programmes are time tabled as 42 weeks of 40 hours study (210 weeks). KUAFD has a 6 year programme comprising 30 weeks per academic year (180 weeks). In order to save time and money for both students and the school a 5 year programme should be seriously considered. Although the visitors appreciate that there may be issues related to the summer heat etc hence the need for shut down during this part of the year.

The separation in the curriculum between disciplines is leading to overlap, redundancy, and too much detail. Moreover it leads to course content that may not be appropriate to dental subjects. What is being taught in the first and second year may not be relevant or even forgotten in later years. Horizontal and vertical integration of course subjects is a well accepted educational approach to overcome these problems. It also may help to decongest the curriculum.

A clearer Credit System might help external evaluation as 2 Credits might refer to one 1 hour per week across two semesters, or two 1-hour lectures per week across one semester. The school might also consider including equivalent credits from, for example, the European Credit Accreditation and Transfer System (ECTS)

(http://europa.eu.int/comm/education/programmes/socrates/erasmus/ects_en.html). This would require additional information regarding self-study time and assessment time.

Identification and definition of the competencies required for a dental practitioner is available in the literature describing these competencies. KAUFU documents present information relating to the contents presented by the curriculum at the dental school. Much of the knowledge required to attain the competencies defined are presented through the school's curriculum. Specific competencies, however, are not well defined nor are the assessments used to measure these competencies recognised.

The visitors' were impressed with the strength of many of the preclinical subjects and there may be an opportunity for gifted students to take time out of the dental course and study for a further year to a higher level. This may allow them to obtain a BSc in this subject prior to returning to the dental programme.

Finally the students would like to see the introduction of exchange visits with other dental institutions. Another suggestion was the use of an elective study where the student may be able to research a topic in more detail or undertake a small project.

Recommendations

1. To change from a lecture-teacher based curriculum to one that is student-centred
2. Horizontal and vertical integration
3. Decongestion of the curriculum, specifically the third year
4. Reflective learning and more use of problem orientated learning
5. The curriculum committee in its review of the school's curriculum assess reform in context of the beginning competencies required by all dental graduates. These should be reviewed in the context of available published information, which may guide the curriculum committee in its recommendations.
6. Introduction of clinical dentistry earlier in the course
7. Exchanges or electives should be introduced in the course.
8. Considering the strength of some of the preclinical subjects there should be an opportunity for gifted students to intercalate and take up the option of a science degree.

Section 3.3 Budget

Visitors' comments

The budget for the school appears to be adequate with flexibility obtained by leveraging contracts for materials purchase. This allows the Dean to respond to requests from Vice Deans and departmental chairs in a cooperative manner. Annually about 4.5 million Saudi Ryals are budgeted for materials and supplies, 4.0 million Saudi Ryals for support and administration staff and 2.0 million Saudi Ryals for maintenance. These budgets have enjoyed an adequate increase each year. Staff salaries do not pass through the school's budget. Additional resources might be available from the President for special requests from the Dean.

Support for research appears to be investigator driven and available competitively from the Ministry of Health, King Faud Research Council grants and the King Fahed University City Science and Technology sources, which is an independent organisation.

Research is a critical component towards promotion and is encouraged in KAUFD; however, there has been limited success in capturing research support within the school. The position for Vice Dean for Research and Postgraduate studies is vacant at this time and the Dean is currently guiding those activities.

Recommendation

1. It is strongly recommended that a strategic plan for research is developed as soon as possible and that this plan should address the availability for time for research for junior faculty and students.

Section 4 – Staffing

Visitors' comments

The staffing of the KAUFD is mainly by graduates from KAUFD and Egypt (Cairo and Alexandria Dental Schools). A large number of staff members who were previous graduates and are well placed to understand the teaching process as they have recent memories of the course. It is therefore impressive that all faculties have postgraduate training mainly from overseas institutions including the United Kingdom and the United States. The staff are enthusiastic and committed to their prime objective of teaching dentistry, which is fit for purpose. There is a willingness to take forward curriculum development and associated staff development.

There is a committed and enthusiastic group of staff members of which the majority have postgraduate training.

Points for Consideration

The Faculty structure is top heavy with senior staff. There are 26 Professors, 9 Associate professors, 27 Assistant Professors and 9 Lecturers, 15 Clinical demonstrators. The visitors have concerns about the age profile of the faculty and this may lead to problems with succession planning in future years

The majority of staff are specialists and therefore this leads to a structure that is discipline and specialist based. There are few if any General Dental Practitioners who could provide a generalist view for the students and would greatly assist in the teaching of the CCC 600 area of the course.

There is minimal uptake of continuing professional development especially in the area of education principles of teaching and learning. There seems to be a limited or no introductory course for new demonstrators/faculty. It is suggested that staff development should be introduced.

Many of the staff are well qualified (i.e. high proportion of Doctorate qualifications) but are under utilised in research programmes within the dental school

Recommendations

1. Need to formalise the education and development of staff
2. Development of a structure for staff development and continuing professional development
3. To utilise the experience of the Saudi Arabian Dental Society as the offices reside within the Dental School.
4. To employ more generalists in the teaching clinics
5. Review the planning for succession in the school

Sections 5 to 16

General comments –There is much teaching and the standards of the programme are high. However the present curriculum is lecture based/ teacher based and it is suggested that there should be moves to a student centred curriculum. Such a recommendation may help to release staff time.

Section 5 – The Biological Sciences

Section 6 – Pre-Clinical Sciences

Visitors' comments

The teaching of the pre-clinical subjects follows a traditional pattern of being held during the first three years of the programme. The departments are strong and are confident of their teaching practices but there is a lack of integration. From a horizontal viewpoint there appears to be some contact between the different departments and there is a need to introduce more vertical integration with the Dental School.

There is separate teaching for the dental student from the medical student although the first year programme is similar to both specialities. The first year includes statistics, revisiting the science subjects of physics, biology and chemistry. Two important subjects taught are English and Islamic studies. English language in particular can be a problem, so students have to learn the language and have complete understanding. In the second year, the main theme is teaching of the biological science subjects of physiology, biochemistry, anatomy and medical physics. Oral biology teaching is undertaken during the second and third years and at present is the only subject that provides a bridge between the years.

Points for consideration

Students who are in the 4th and 5th clinical years will only revisit these science subjects taught in year 2 and 3 on a voluntary basis. All departments would like to see more integration. The subject material provided depends on what each department considers of importance to the practicing dentist. There is little feedback from the School of Dentistry as to what is required.

It was reported that dental students get better grades than the medical students and it was thought that the smaller dental cohort provides this advantage. Furthermore competition is high to enter dentistry and therefore students are more motivated.

The present system does not follow a systematic approach (for example a study of the Cardio Vascular system which would integrate teaching in anatomy, physiology etc.). We were informed that the medical school is looking to integrate teaching and learning following such a systematic approach.

Recommendations

1. Both horizontal and vertical integration is needed to provide improved co-ordination between all the subjects
2. A Committee from the dental school and basic medical sciences is required so that they understand what is happening and co-ordinate the teaching and learning.
3. To consider teaching subjects via a systematic approach (i.e. from a structure and functional viewpoint).
4. To decongest the course and look to teach the essential requirements for a dental student
5. To introduce electronic learning to reduce dependence on lectures.

Section 7 - Para-Clinical Sciences

Section 8 - Human Diseases

Visitors' comments

The third year contains the pre-clinical subjects of pathology, pharmacology, human diseases and introduction to basic oral surgery procedures and theory. Oral biology teaching is undertaken during the second and third years. All the subjects are taught completely separate. The general pathology course contains the same material load as that provided to the Medical students and for instance the pathology lectures are given 6 times (medics, dentists and paramedics – male and female groups). This is demoralising for the staff involved and methods to reduce this should be introduced. For example a larger lecture theatre/auditorium will assist in this process.

The course was designed 20 years ago and there is a general feeling that change is required. Pathology does use specimen pots for teaching but the culture does not allow for post mortems to take place.

Pharmacology is taught in both the 3rd and 5th years and seems to be repetitive. Feedback from the dental school on the relevance of the teaching is requested. There are no practical based lesions in this subject.

There was limited representation at our meetings from the Medicine and Surgery course but we were informed that general medicine and surgery did undertake lectures and practical sessions

Points for consideration

There is a problem with communication between the Medical teachers and the Dental School. This issue was raised both by the School of Dentistry and the Dental Students. The Students reported that some of the material is not relevant to dentistry and too much detail is given. They are often assessed on material that is not covered. Many students will purchase textbooks such as “Essentials of Medicine and Surgery for Dental Students”, Churchill Livingstone Edinburgh 1989 and use this as their revision aid.

General pathology is being reduced and there is positive interaction with the School of Dentistry. It was reported that if there are problems raised by the students then there is direct action to modify the course.

Recommendations

1. More communication should take place between the Medical and Dental School. The establishment of a Human Diseases committee may solve this problem.
2. Pharmacology should receive direct guidance on a curriculum that is relevant to dental students. The subject should be linked to the clinical teaching. This subject could introduce practical sessions that would make it more relevant to the students.
3. The lecture load in pathology should be reduced to alleviate staff burn out in this area.

Section 9 - Orthodontics and Pediatric Dentistry

Section 13 - Oral Surgery and Oral Radiology

Section 14 - Oral Medicine and Oral Pathology

Visitors' Comments

Paediatric dentistry believes in changes and provides input into the curriculum committee. However there is no student input. Each department has a number of divisions. It was observed that the subjects of Oral Medicine, Oral Pathology were in Paediatric dentistry. There is verbal feedback on the course from students and the departmental meetings are once a month. There are official minutes kept but there is no student representation on these committees. Saudi Arabia has increased incidence of dental caries and therefore the education of preventative practices is important. Student feedback praised the teaching and learning that was undertaken by the Paediatric Dentistry Faculty.

Orthodontics is reducing its teaching and moving toward more postgraduate courses.

There is some repetition within the course and some subjects are taught across different departments. Oral surgery did raise issues with the course being intensive and may benefit from decongestion.

Points for Consideration

All Faculty consider the dental course is too congested at present. There are examples of good practice in some areas of the course (such as Paediatric Dentistry) and these should be disseminated to other departments. There is limited opportunity for the students to undertake reflective learning practices. The students do undertake this but on an informal basis. There are no formal personal development portfolios for the student to complete.

There is a large amount of laboratory work present in Orthodontics, which is also covered in other areas of the course such as Removable Prosthodontics and Fixed Prosthodontics. For example student feedback revealed examples of special tray construction being taught by all three departments.

Recommendations

1. Disseminate good practice between Departments
2. Introduce the use of reflective practices into the learning skills of dental students
3. Reduction in the amount of laboratory work
4. Decongestion of the teaching within the departments allowing students time to learn.

Section 10 - Public Dental Health

Section 16 - Behavioural Sciences

Visitors' comments:

Public Dental Health is concerned with two main aspects of the curriculum, biostatistics taught in the third year and Community Dental Practice and Epidemiology in the sixth year. The departmental philosophy is essentially linked to the societal needs in that the undergraduate student will develop a better understanding of the population they will serve as a qualified dentist.

The course described to the visitors was mainly that taught for the 6th year during a four-month period whereby the students rotate out to various local schools and carry out small research projects. These introduce the student to epidemiological research. The staff told us how shocked the students are when faced with children who did not brush their teeth or use toothpaste. In addition to the research project the students are expected to develop preventive / motivation leaflets for the community on an aspect of dental health in an attempt to assist in the prevention message to the population. The visitors were shown some excellent examples whilst visiting the female section. Through dietary counselling in Paediatric Dentistry and in the Community it had become clear that the diet of many children was found to be inadequate in terms of nutrition value. Much of this work was thought to be invaluable, especially as there are no Arabic speaking hygienists in the Jeddah area. The staff felt that this engendered the importance of the preventive practice.

The department also outlined the disease levels not least the DMFT for 12 year olds and were told that there was no need for fluoridation in the city. However an agreement had been reached to prioritize the use of toothpaste as a means to reduce dental caries. There appears to be a problem with fluorosis in the Makkah area.

The department through their community research projects maintain contact with the Alumni to investigate the treatment needs of the community. The team approach is also encouraged, despite the fact that solo practice is the norm and that there are few trained dental hygienists available. There is only one Hygiene school in Riyadh but dental assistants are trained in Jeddah. The continuing education programmes for the working dentist was outlined in terms of revalidation.

The Behavioural science teaching encompasses the Islamic way of life especially where professionalism and attitude towards the delivery of patient care was considered. The studies take a broad approach to different concepts resulting in a young person shaping their beliefs and commitment to continuing education.

Points for consideration:

There seems to be confusion amongst the staff members as to what research has been carried out in the departments despite the visitors being told that Caries Risk and Epidemiology are the main research themes of the school. It would seem that WHO criteria are utilised by the students whilst carrying out epidemiological studies. Examples of the student's work was made available to the visitors demonstrating research methodology including statistical analysis.

Recommendations:

1. Familiarise the department staff with the research that is currently taking place so all are informed of the outcomes and not contradicting each other.
2. The departments are doing a good job but there is a need to restructure the curriculum to provide concentrated and relevant sociological / psychological aspects and communication skills teaching
3. Develop a structured course for behaviour management to include Communication skills to improve the student's understanding of how to treat and look after patients.
4. Formalise assessment for professionalism and communication skills
5. Develop a research strategy, which is coherent and meets the department aspirations of providing for the community resulting in the majority of children becoming caries free as well as a fully funded Dental Epidemiology and Caries Research Centre.

Section 11 - Restorative Dentistry

Section 12 - Periodontology

Section 15 - Comprehensive Care Course (CCC 600)

Visitors' Comments

One of the strengths of the school is the Comprehensive Care Clinics (CCC600) but at present this is only introduced in the sixth year. There is difficulty in introducing such teaching earlier into the course due to the congestion in year 4. The course is taught by specialists but there is little generalist involvement. The visitors were impressed by the commitment and enthusiasm of the staff in this area. All teachers are devoted to it but are undertaking a heavy teaching load.

There was unanimous opinion that the course structure must be decongested or more staff should be employed to assist in the teaching process. There is little time for research and this concerns staff as their promotion is dictated by the publication of papers in peer-reviewed journals.

There are two departments for Prosthodontics and there was general agreement that there should be one department of Fixed and Removable Prosthodontics. The Periodontology department appears to be a separate subject area but it does contribute and interact with restorative dentistry subjects and is moving toward full integration. All departments look for innovation and an example is the introduction of the teaching concepts on minimal intervention in the speciality of operative dentistry

The present programme does not allow the possibility of reducing the overall curriculum to 5 years, but all staff agree that the challenge is to reduce the curriculum. The University term is a 36 week year which includes the examinations. However the school does have the benefit of the 1 year internship which allows for further development of clinical skills.

The phantom head laboratories are impressive and we understand that the school is looking to introduce the DentSim in operative dentistry

Students and staff work together in a friendly environment. Assessments are made in two areas, which are the amount and quality of the work undertaken. The students are counselled four times a year.

Points for Consideration

The assessment of student work is done on a five point grading system. There is minimal evaluation of the competency of the student. There is some grading of the overall performance of the student on their organisation and time management but whether they are at novice, learner, competent or proficient grading is not at present evaluated.

The number of cases or units of work is number driven and is determined by each department rather than a global requirement.

Whilst the strength of CCC600 is the integration of the treatment planning and its subsequent execution, it is not clear to the visitors whether there is a recall system and ongoing maintenance of the patient.

The visitors found that departments have different ideas and at present there is no obligation to undertake staff development. There is no provision for new faculty orientation prior to supervising students. There is a great desire from the staff to embrace staff development especially if they are able to learn about new techniques.

There are too many technical and laboratory requirements and if these were to be reduced it would release the students to undertake more productive clinical work. There are differences in opinion on the amount of laboratory requirements.

Examples of the case presentations were made available from the CCC600. These cases are reviewed by staff if suitable for a CCC case and are based against clinical criteria to ensure that they incorporate a variety of clinical tasks. Supervisors from different divisions evaluate the students. The approach is impressive however there is no written component and or reflective element, which would considerably strengthen the learning process for the student

Recommendations

1. The school should look to developing and introducing Competency testing when assessing students.
2. The CCC600 course is impressive and should be introduced earlier in the clinical course
3. The technical requirements should be reduced in number and allow more free time for self directed learning
4. The purchase and introduction of DentSim units.
5. There is a complex departmental structure and this should be reduced in size
6. The school will benefit from an increase in staffing levels
7. There should be more dedicated research time especially as the majority of staff have doctorates

Section 17 - Examination, Assessments, and Competences

Visitors Comments

Assessment is a universally challenging aspect of course design and planning, and the school is to be congratulated on the conscientious efforts of the staff to ensure that all aspects of their teaching are assessed. Staff do not rely upon just one form of assessment, and the range of assessment methods is reasonably wide. However, more contemporary methods, particularly for clinical assessment, could be employed.

The assessment process within KAUFU is driven centrally from the University Council. This dictates that 40% of marks are derived from Continuous Assessment and 60% of marks derived from a Final Examination.

Final Examinations are administered following each department's teaching at the end of the academic year. Mid-year examinations are frequently employed at the end of the first semester, these contribute to the Continuous Assessment, and their format is frequently similar to the Final Examination.

Quizzes, course work and clinical assessments may all contribute to Continuous Assessment. Practical examinations, clinical and laboratory examinations, oral examinations, MCQs, case presentations and written examinations may all contribute to the Final Examination in each discipline.

The structure and extent of formative assessment is less clear, although students reported that they enjoyed good relationships with staff, which were generally willing to discuss academic matters and progress with the student.

The visitors were told by a small number of staff that they were attempting to use assessment of competence by means of OSCEs, but there did not appear to be any agreed policy regarding either competence assessment or the use of OSCEs.

Students expressed concern that some MCQ type questions were particularly difficult to understand. The visitors had an opportunity to see some of the MCQ papers that had been set, and would agree with the views of the students.

There is undoubtedly a heavy assessment burden for both staff and students, and whilst there is some effort to avoid duplication within the departments, there is inevitably some overlap, especially between departments.

The Aims of the BDS Programme at KAUFU are articulated in paragraph 1.7.1 of the self assessment document. These aims are entirely satisfactory and represent the contemporary ambitions of a majority of quality dental schools; however it is difficult to determine how students are assessed against these aims.

Points for Consideration

The school might like to consider a clearer strategy and structure for formative assessment that includes feedback on summative examination performance.

The school may wish to look at the use of Learning Outcomes rather than Learning Objectives. This will facilitate the matching of assessment against learning.

Similarly a Competency based curriculum will lead to assessment of competence, which may also bring benefits in terms of curriculum overload.

Use of Competence will allow integration of both teaching and assessment. This may lead to a shorter assessment period releasing more curriculum time and staff time.

Greater use of student self-assessment through Computer Assisted Learning (CAL), programmes, (available on-line via the University website) the results of which may be monitored centrally, would ease the burden of assessment and allow students to be more self-directed in their learning.

The school might consider CPD in terms of all aspects of examiner training.

Recommendations

1. The school should look to reduce the quantity of the assessment burden carried by both staff and students.
2. The school should review the structure and format of the MCQ papers.
3. There should be greater integration of topics assessed between departments, and between basic science, preclinical and clinical disciplines.
4. To assist understanding of the overall balance of topics of assessment the school should develop an assessment matrix.
5. The stated KAUFDA Aims for the BDS programme should be developed further into a competency list for the graduating dentist. A useful model is:

Profile and Competencies for the European Dentist. Plasschaert AJ, Holbrook WP, Delap E, Martinez C, Walmsley AD. European Journal of Dental Education. 2005; 9: 98-107,

Or available at: www.adee.dental.tcd.ie

Section 18 - Other Influences

Visitors' comments

Several inferences affecting the overall wellbeing of the schools faculty and students were identified most of which were handled well. The school is complimented on its involvement in the assessment and awareness of regional oral health needs and the development of the web site in this area. Other university activities including sports, counselling, religious guidance and student mentoring are all important areas, which are handled very well.

In addition the coexistence of private dental practice for faculty is well organized and the recognition of KAUFD as the home of the Saudi Arabian Dental Society (Western Region) shows that there are productive relationships between the school and practicing community.

Section 19 - Student Affairs

We met with male and female class representatives were from each of the 6 years. The students were very impressive and were a credit to KAUFED. They are young, enthusiastic, intelligent and pleasant students. They were well presented and all the committee found the discussions very fruitful. Their attitude was very positive and is a true reflection of the care and attention of the staff that are truly motivated to looking after their students. We congratulate the school.

Visitors' comments

The students are inspired and motivated. There is a very good spirit and atmosphere in the school. They are "proud" to be part of KAUFED. Most of them wish to continue their studies and aspire to undertaking a master's speciality and then to go forward to a doctorate. They wish to undertake this abroad and then continue their relationship with KAUFED. They have a strong desire to be successful and leaders of their profession.

The students have benefited from their first year whereby they have become proficient in the English language, the language of the BDS programme. All the students acknowledged the importance of this. The third year is heavily congested and this creates its own problems in terms of recreation and finding time to study for the heavy examination load. However, most seem to take advantage of the extra mural facilities within university. It was interesting to note that the suggestion of an Elective Period or Exchange Programme during their clinical years was welcomed as a means to further their personal and professional development.

The tutor system was acknowledged to be good and it appears to the visitors that mentoring takes place, as demonstrated by their professionalism and determination to be the best graduates and be a credit to KAUFED. There is no doubt that this will be the case. The leadership and role models in Paediatric Dentistry have been an inspiration to the students we met. The students in general praised the teaching of the Paediatric Dentistry department.

Points for consideration

The major concerns were in the fields of

1. Horizontal and vertical integration (basic sciences and medical sciences) into dentistry, especially biomaterials, pharmacology and medical sciences
2. Decongest the curriculum in general but most of all the 3rd year (duplication of laboratory work and too much irrelevant details are taught)
3. Introduction to clinical dentistry earlier on in the curriculum preferably in the first or second year.
4. Introduce electives, exchange programmes and extra mural studies such as time for sport and non-dental related subjects.
5. More communication skills such as sociology and psychology related especially to their clinical contact with patients.
6. Examination system is congested and there is no feedback to how well they did in the examination.
7. The questions are fair but could be improved. There should be a quality control system for examinations.
8. Make a real semester system in order that time wastage is kept to a minimum.
9. There was a complaint about shortage of staff in clinical and preclinical courses

Section 20 - Research and Publications

KAUFD is a young school, and hitherto, quite properly, the faculty has concentrated upon developing a strong curriculum. The evidence for the quality of this programme is demonstrated by the return of KAUFD graduates to the school from postgraduate studies overseas. Furthermore, the students universally stated that their career ambitions included the pursuit of a higher degree, and/or prosecution of research and many wished to return as teachers. This is a clear tribute to the role models present within faculty.

With growing maturity, and with a planned curriculum review, the school has the opportunity to develop a strong research profile. This will benefit the school both nationally and internationally, and make it distinctive and of greater value to society than two private dental schools that will be operating in Jeddah shortly.

There is no Vice Dean for Postgraduate and Research; the Dean is currently acting in this role. The presence of a Vice Dean as a coordinating focus for Postgraduate and Research activities must be a priority if research is to prosper. A further requirement for the prospering of research is the release of staff time to pursue research. Staff told the visitors that they have a half-day per week for research, and this is usually taken up with administration. If a block of time is needed, then staff will use their summer vacation.

The promotion route for staff requires the publication, in a refereed journal, of 3 single author papers, or a PhD. The concept of a single author paper in contemporary dental research is outdated. The school will flourish if faculty are encouraged to collaborate with peers within and outside Saudi Arabia.

The visitors were told that there are limited funded opportunities for staff to travel outside Saudi Arabia to attend professional meetings. Attendance at such meetings will allow staff to present their research to a wider audience, create collaborative links with other centres and raise the profile of KAUFD internationally.

The self-assessment document lists 3 priorities for research; epidemiology, laboratory and clinical studies, and pedagogy. There is a shortage of epidemiological information that is essential for the school as it develops a programme which produces graduates that are fit and able to serve the community in which they will work. The epidemiological information that is available on caries prevalence appears to be contradictory. Students undertake a Community-based project in 6th year that may involve some epidemiological activity, but this does not seem to be linked to any of the major epidemiological needs of the country.

The visitors saw impressive research facilities within the King Fahad Research Centre, and evidence of 'cutting edge' research in molecular biology. However the impression gained was that this facility was under-used. King Fahad Research Centre has funds to support research, and there are two other major sources of funds, one within Jeddah and one central source in Saudi Arabia. Staff should be encouraged to bid against these funds, and be given support to pursue their research, and encouraged to seek publication in international journals.

Recommendations:

1. A strategic approach to research is required and this should be school based and cross discipline.
2. A vice-Dean for research should be appointed as a priority.
3. This research strategy review should involve the University.
4. The school should provide support for research active staff
5. The criteria for promotion should be reviewed
6. The undergraduates should be encouraged to become involved in other forms of research as well as epidemiology

Section 21 - Quality Development

Visitors' Comments

Feedback on the teaching is gained from meetings with students (representatives from each year). A questionnaire has recently been sent to the alumni asking for feedback for on their undergraduate experience. The results in general show appreciation for the teaching at KAUFU. Some suggestions were made to avoid repetition and to decongest the 3rd year.

Proposals for improving the curriculum and the scheduling of courses are made at the Curriculum Development Committee, which meets monthly, which may lead to agreed changes. The ADEE/Dental site visit has been utilised as part of a proposed five-year quality assurance cycle.

A comprehensive self-assessment document was prepared before this visit; this was well prepared and contained input from most of the faculty. The KAUFU is to be commended with their critical review process as part of quality assurance.

Points for consideration

A five-year quality cycle is considered to be the best practice in most universities.

In so far as to obtain feedback on the courses (content, teaching format and quality, learning materials, quality of examination questions, etc) from the students it is not uncommon to use a structured formal system of questionnaires. For example every student year is evaluated using a structured questionnaire midway and a more general questionnaire, covering aspects of the curriculum and the school every five years. In addition to post qualification questionnaires there is a need for more immediate feedback which would allow the students to evaluate how they are progressing. Faculty should also be asked to give feedback on the course using similar questionnaires to the students.

The curriculum development may use the results from these questionnaires in each year to improve the course delivery implement more fundamental changes in the curriculum and the school on a yearly basis. This information could lead to publication in the Saudi Arabia Dental Journal, to document and demonstrate ongoing innovation and improvements in dental education.

Recommendations

1. Introduce a more structured and more formal system of quality assurance
2. Differentiate between minor adjustments to the course and school in general and more strategic changes in the frame of a five to six year quality assurance cycle.
3. Inform staff and students and alumni about the improvements made through publication in the Saudi Arabian Dental Journal.

Section 22 - Overall Comments on the School

Commendations

KAUFD has a desire to be one of the best schools on the world stage and they have accepted that this will be furthered by the challenges of external (international) evaluation. The self assessment documents prepared for the ADEE/Dented site visit were of the highest quality

The Visitors were impressed with the quality of the both the faculty and students. There was a commitment and eagerness to evaluate and improve. Not only did everyone show tremendous enthusiasm, there was also immense pride and loyalty to KAUFU. The respective relationships between the dean, vice deans, chairs, faculty, students and support staff were admirable.

The quality of the building and the facilities was high and the visitors were informed of the expected improvements to facilities that will take place. The present facilities and equipment were well-maintained. There was a high standard of dental related assistants, administrative and auxiliary staff. The University shows support for the funding for expanding the clinical areas to meet the additional burden of increasing student numbers. The University library was excellent with good IT connectivity.

The school has excellent links with the community and there is a wide range of available patients for students to work on. The visitors cannot stress how impressed they were with the number of students committed to post graduate education and eventual academic careers. The research potential of faculty is enormous and they need dedicated time to realise this potential. The role model of the Faculty to students is underpinned by their international educational experiences.

Summary of Recommendations

The final recommendations are those which have been highlighted earlier but represent actions that the visitors consider would provide immediate benefit and are achievable in the next five years.

- To continue to plan for new build
- To optimise space utilisation in the future to facilitate small group and interactive learning
- To review the Committee structure with a view to reorganisation.
- A strategic plan for research is developed as soon as possible and that this plan addresses the availability of time for research for junior faculty and students.
- To change from a lecture-teacher based curriculum to one that is student-centred
- The curriculum committee in its review of the school's curriculum assess reform in context of the beginning competencies required by all dental graduates. These should be reviewed in the context of available published information, which may guide the curriculum committee in its recommendations.
- Development of a structure for staff development and continuing professional development
- To employ more generalists in the teaching clinics
- Both horizontal and vertical integration is needed to provide improved co-ordination between all the subjects
- A Committee from the dental school and basic medical sciences is required so that they understand what is happening and co-ordinate the teaching and learning.
- More communication should take place between the Medical and Dental School. The establishment of a Human Diseases committee may solve this problem.
- Disseminate good practice between Departments
- Develop a structured course for behaviour management to include Communication skills to improve the student's understanding of how to treat and look after patients.
- Formalise assessment for professionalism and communication skills
- The CCC600 course is impressive and should be introduced earlier in the clinical course
- The technical requirements should be reduced in number and allow more free time for self directed learning
- To assist understanding of the overall balance of topics of assessment the school should develop an assessment matrix.
- The stated KAUFDA Aims for the BDS programme should be developed further into a competency list for the graduating dentist. A useful model is:
 - Profile and Competencies for the European Dentist. Plasschaert AJ, Holbrook WP, Delap E, Martinez C, Walmsley AD. European Journal of Dental Education. 2005; 9: 98-107, Or available at: www.adee.dental.tcd.ie
- A strategic approach to research is required and this should be school based and cross discipline.
- A vice-Dean for research should be appointed as a priority.
- Introduce a more structured and more formal system of quality assurance