

# Beirut Arab University

## FACULTY OF DENTISTRY



## Association for Dental Education in Europe

Follow-up SCHOOL VISITATION

17-18 November, 2016



## ADEE Visitor's Comments

**LEADER**

Leading European Academic Dental Education and Research

THE DENTAL EDUCATION  
EXCELLENCE PROGRAMME

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## Introduction

The visitor was impressed by the quality, comprehensibility and clarity of the self-assessment report which provided clear and valuable information on the changes since the last ADEE visit two years ago. The School must be congratulated for the open and enthusiastic atmosphere encountered with the staff and students and honest manner in which discussions were carried out. The visitor would like to particularly thank Prof. Essam Osman, Dean of the Faculty of Dentistry, Assoc. Prof Roula Abiad, Assoc. Prof Sherine Badr and Assoc. Prof. Hala Ragab for their excellent cooperation and hospitality during the visit.

The first ADEE site visit took place in April 2014 with overall view of the visitors that the Faculty of Dentistry has much to be proud of and can be confident in providing dental education at a level comparable to schools in Europe. The visitors produced the final report with constructive comments and recommendations to contribute to the achievement of a high quality dental education within BAU Faculty of Dentistry in accordance with the University's aims and vision and the European and international standards. It was also recommended that the Faculty of Dentistry should repeat the self-assessment process periodically. This recommendation was well received resulting in the Faculty's participation in the ADEE Leader quality improvement program.

The LEADER Excellence Programme is a continuous quality improvement initiative designed by the Association for Dental Education in Europe that provides contextually appropriate guidance on the development of meaningful quality improvement structures within participating dental schools. LEADER is complementary to existing Quality Assurance programmes that may operate regionally. Participation in LEADER will provide Schools with enhanced support in meeting their national regulatory and quality assurance requirements. It is a tool that enables a school to embed continuous quality improvement within its structures and receive appropriate peer recognition for this. It will also provide a valuable marketing tool to participating schools, signalling them as a LEADER in the field of dental education, committed to ongoing quality improvement and development.

ADEE is confident that LEADER provides the framework and catalyst for schools that will give life to continuous quality improvement in a manner that, if embraced, will return rewards for dental schools.

At the core of LEADER is the principle of peer reviewed self-assessment, a commitment to continuous quality improvement and a vision which sees Dental schools as the leading provider of quality dental education at all levels. The LEADER programme is concerned with truly embedding quality improvement within Schools' structures. This is achieved by offering a structured approach to quality improvement and benchmarking.

Quality management should be an ongoing, dynamic process, as well as forming an essential and integral part of every function in the dental school and hospital. There are different methods available for quality evaluation. Perhaps, the most important point is to have a clear system for Quality Assurance and Improvement built into the management structure of a dental school (and hospital). Ideally it should be a continuous, repetitive process, selectively benchmarked and with appropriately timed internal and external validation included in the cycle. The key outcomes of improvement should never be assumed to have been achieved just by implementing change but should be checked against what was intended, in a further process of review and follow-up.

ADEE believes the most effective means of achieving this is a comprehensive self-assessment process. Self-assessment can be seen as the basis for achieving robust quality management, which will encompass all of the key processes in a dental school (and hospital), including education, risk assessment, research and also patient care and protection.

The present follow-up visit focused on particular activities identified within the two year report and aimed to validate improvements made and assist in identifying future areas for improvement.

### **Requirement Area 1:**

#### **Vision, mission, goals and objectives**

Beirut Arab University received the Institutional Accreditation for the Foundation for International Business Administration Accreditation (Germany) for six years in April 2015. This was achieved after vast reform in both general administrative structure of the University and educational reform in each faculty. As the result of this exercise there are still many reform plans to be implemented in the near future.

At the time of the previous visit the new strategic plan was drafted. Presently the Faculty strategic plan (2013-2020), mission, vision and strategic objectives are finalized to be aligned with the Institutional strategic plan and to correspond to the recommendations to meet the ADEE suggestions. The vision, mission and strategic objectives clearly express the values of the Faculty and are up-to-date, well justified and in line with those of the University. These are also present in everyday life of the Faculty in terms of framed plates throughout the premises.

### **Requirement Area 2:**

#### **Quality management, structures and progress**

Quality management plays a significant role in the Faculty's administration through Quality Assurance Unit. Documentation and keeping records are of great concern of this unit with remarkable history in its activity. Presently digitalization has taken place for all new documents such as course files and student portfolios.

Quality management activities are comprehensive, ongoing and systematic and different monitoring strategies are implemented to ensure quality in education, research and health care delivery. The students submit an electronic course evaluation survey on educational methods, course content as well as academic staff performance at the end of each semester. An exit survey is also administered to new graduates to assess the overall performance of the program. Regular external audits by experts of different specialties invited to evaluate the courses are also utilized.

The Faculty has developed a research e-portfolio to follow-up the ongoing research. In addition to this the staff members submit their scientific activities to the University website to be monitored by the Deanship of Graduate Studies and Research. A Medical Research Lab is currently under construction, but there are also facilities available in other faculties, such as at the Faculty of Science, and Faculty of Pharmacy. Researchers from Faculty of Dentistry at BAU collaborate with researchers from other national and international universities sharing ideas and facilities. At the educational level, numerous courses have been introduced to foster research such as scientific writing, research methodology, biostatistics, evidence based dental research, clinical conferences and the journal club.

The quality of patient care is also assessed in multiple ways. The magnetic patient identity card has been introduced to facilitate access to patient information and records and an SMS system is currently applied to manage patient recall appointments. A questionnaire monitoring patient satisfaction is also administered, and regularly analyzed. These practices also support quality management.

The Faculty enjoys of functional, well-maintained, remodeled and refurbished facilities. The students' needs are well met with a new centre for students' activities. The preclinical laboratories are now connected to the network for the digitalization. The reception and waiting room of the Diagnosis Clinic were enlarged and LED screens were added to all waiting areas showing oral health care educational videos. Presently all dental clinics are supplied with assistant dental stools to facilitate the four-handed dentistry.

The high quality infection control measures to be acknowledged have further improved by new up-to-date autoclaves and instrument packing equipments in the clinics. Infections control is frequently evaluated by external audits as well as students' compliance with the instructions. Collaboration with the Microbiology Department at the Faculty of Pharmacy was generated in this area. In addition, regulated medical waste management is strictly followed. They are treated in accordance with the environmental local regulations. Aiming at continuous enhancement, the infection control officers and nursing staff attended educational activities entitled "Sterilization Day" and "The Regional Course on Infection Control and Prevention in Hospitals".

The specialty clinics are supplied with six fully integrated surgical microscopes and expansion of post graduate clinics with new 13 dental units is under progress. The high quality and very modern external dental technical laboratory is further developed and provides educational experiences and up-to-date services to all the students and their patients.

The Faculty is commended on the impressive technical modalities to provide high quality dental care supported with the clinical and educational management software *DenTrooper* which has been further updated. The digital system now includes possibilities to laboratory request management, documentation of all preclinical laboratory work by second and third year students, data for research and rubrics and self-assessments to monitor students. The *DenTrooper* was also connected to the phantom and simulation lab to be used by the early years' students, with the aim for them to become familiar with the software management system in early stages.

The in-house library has been moved to a larger space and refurbished to serve better the undergraduate and postgraduate students. This has gained a lot of appraisal by students and staff. Presently users have access to e-journals and on-campus or off-campus online databases. To avoid potential plagiarism, *turnitin* is now utilized by the educators in all divisions to monitor the undergraduate and postgraduate students' assignments and research projects and the library staff provides training sessions on *turnitin* for all students and educators.

### **Requirement Area 3:**

#### **Educational stakeholders management**

The Faculty has a significant role in the country's health care producing high quality and competent dental professionals to contribute to the society's need and services. The Faculty is the leading educational institute in the country and plays a major role also within in the entire Middle East Region.

The Faculty has set a policy for the retention of its academic and clinical staff and has been quite successful in attracting and retaining its staff. This has been done through providing a productive and supporting working environment in addition to improving the working conditions.

At the Institutional level the Centre for Professional and Continuing Education has been established which is managed and directed by a steering committee including a representative from each faculty. The Faculty Alumni Office keeps contact on periodical basis with the former students. Several continuing courses and workshops are organized by the Faculty and in cooperation with the Lebanese Dental Association and offered to dental professionals and alumni.

#### **Requirement Area 4:**

##### **Managing the human resource**

The Faculty is fortunate to have positive and enthusiastic clinical, academic and administrative staff with active participation in various committees and the decision making process of the faculty. To overcome earlier challenges in attracting and recruiting qualified staff the Faculty has set a policy for retention of its academic and clinical staff in addition to modifying the salaries and incentives. To minimize the high workload of the qualified staff more employees including nursing staff, receptionists and IT administrators have been appointed.

There has also been an increase in staff professional development activities together with the medical faculties and experts in medical education and other fields. Experts in medical education and other fields were invited to give presentation to the medical sector staff. Topics included not only educational issues, such as the latest trends in teaching, integrated outcome-based curricula and assessment tools, but also healthcare systems management and quality issues. In order to enrich the educational skills the staff members have had increasing opportunities to attend conferences in medical education at the national and international level.

The undergraduate students are well represented in the Faculty Committees and participate actively in the decision-making processes. The academic advisors for each group of students for the whole period of their academic studies and course coordinators provide counseling and support and early intervention when needed to the students. Students' rights and duties are well defined on the BAU website and addressed through orientation sessions by the Counseling Office of Student Affairs at the beginning of each academic year. Students' wellbeing is supported by various extracurricular, social and sports activities throughout their studies. Students have been active in organizing oral health prevention programs and have recently founded the Lebanese Association of Dental Students which is a member of the International Association of Dental Students. This has increased the international activities of the students in different congresses and also facilitated initiation of students' exchange program.

In order to attract new students and publicize the profile of the Faculty, BAU invites prospective high school students to attend its Open Doors event in Beirut Campus, Debbieh Campus and Tripoli Branch. Throughout the event, high school students have the opportunity to find out about the academic programs, student services, facilities, and activities.

The Master and PhD students have the opportunity to contribute more in educational activities and they are also offered part-time jobs. These trends are according to the previous visit's recommendations and support potential as future academic staff members. The number of international students in both Master and PhD programs has increased.

Postgraduate students have the opportunity to participate in educational activities as clinical teachers. They attend a core course in medical education but there is a plan to arrange more structured training courses for them.

The Beirut Arab University urges all its students and staff members to improve their research portfolio and a new institutional policy and guidelines have been released for research enhancement. A Deanship of Graduate Studies and Research has been established at the University level to promote scientific activities and to support

collaborative and interdisciplinary research activities. The Faculty established a Research Committee in collaboration with the medical Faculties and Faculty of Science, which has facilitated designing several multidisciplinary research projects. Incentives are allocated for research publications in peer reviewed journals. There have also been significant attempts to improve the state of dental research in Lebanon, increase international cooperation and to promote collaborative activities among the Lebanese dental faculties in which the Faculty has taken a decisive role. In order to increase ethical responsibility, all clinical research are revised and approved by Institutional Review Board. The University Research Action Plan 2016-2020 with four main research themes set also priorities for the Faculty's scientific activities.

#### **Requirement Area 5:**

##### **Managing the curriculum**

The Faculty demonstrates a strong commitment to curriculum reform based on the ADEE and the Faculty Curriculum Committee recommendations. The latest curriculum reform is to be fully in service for all student level by the academic year 2017-2018. The main aim in revision has set to prepare graduates to meet the challenges of an interdisciplinary and holistic approach of treating patients. The detailed changes in the curriculum are presented under specific courses and disciplines in the self-assessment report in very clear and organized manner.

There are several structural changes in the new curriculum including early introduction of more dental courses starting from the first semester, early patient contacts starting from the fifth semester and further vertical and horizontal integration among biological and medical subjects and the dental courses throughout the curriculum. The courses of biological and medical sciences were redistributed over the first 6 semesters and the basic dental sciences courses were extended vertically over the 10 semesters to allow further integration. For example, the Microbiology in Endodontics is integrated with the course of *Applied Microbiology & Infection Control* and with the courses of *Oral Pathology I, II*.

Some courses comprising topics with more weight to contemporary dentistry were split and introduced as separate courses. For example, *Histology & Genetics* was split into 2 courses: *Molecular Genetics* in the 1st semester, where students acquire a foundation to gene therapy and epigenetics, and learn to apply molecular biology in the detection, prevention, and treatment of medical/oral conditions and *General Histology* where students learn about the basic structure of tissues. New courses are introduced, e.g. the course of *Medical Education*, which covers concepts and new trends in health profession education for PhD students, the course of *Behavioral Sciences, Research and Evidence-based Dentistry* and others.

More emphasis has been placed on preventive dentistry integrated in several courses and new preventive courses have been introduced. Early introduction of undergraduates to research with encouragement to participate in research projects and enhancement of evidence based research skills have implemented in the curriculum. Introduction of new Division of Dental Public Health and Behavioral Sciences plays a major role in creating professionalism and enhancing social responsibility among undergraduates. Faculty electives have been introduced and heavy workload of senior year students have been reduced by redistribution of contact hours.

More emphasis has also been placed on comprehensive approach to patient care and interprofessional collaborative education is further promoted. Students are introduced in the concept of interprofessional collaboration in the early years, when they attend common courses with students from other biomedical sciences (medicine, pharmacy, nursing) and have the opportunity to discuss with them the human diseases and pathological conditions from different perspectives. In the final semester, the course of Interprofessional Education (IPE) for Health Care integrates all these experiences, where dental students, through a hypothetical case, apply their interpersonal and communication skills with students from medical faculties in a multidisciplinary approach to offer a comprehensive care plan for that case. The course adopts contemporary educational methods, such as the Problem Based Learning (PBL), Case Based Learning (CBL), Team Based Learning (TBL), and -recently- Simulation Based.

Formative and summative assessments are employed in all courses and students receive regular feedback on their performance. Assessment methods are properly aligned to the

intended learning outcomes to ensure the achievement of the competences. This is realised through a blue print document delivered in the course file to the Quality Unit after completion of each course. This blue print is in the form of a matrix showing alignment between all assessments and the intended learning outcomes. Recently, the senior students, in the 10th semester, are assessed By Objective Structured Clinical Examination (OSCE) as integrated assessment. Integrated assessment in the form of case scenario is applied within the courses that are horizontally integrated to improve critical thinking and problem solving skills.

In addition, students' self-assessment and peer-assessment are also used and e-portfolios have been introduced. E-portfolios have been extended to become applicable in some preclinical courses as endodontics, operative and paediatric dentistry. Students are asked to digitally record their requirements in the form of photos and radiographs.

### **General Comments and Recommendations**

The Faculty and its staff member are to be acknowledged for the immense work to revise the curriculum and academic activities according to the ADEE recommendations. The recent developments are impressive and result of the active Dean in cooperation with his staff and students. The Faculty is beyond no doubt the flagship of dental education of the country and certainly meets the standards of many schools in Europe.

The recent changes have been both structural and operational. The facilities have been renovated to better support educational activities like the new library and enlargement of post graduate clinics. The faculty is also very lucky to enjoy of cutting edge dental technology both for clinical work and research. This would not have possible without the full support of the University through thrust and cooperation of the visionary Dean.

The attempts to increase integration both horizontal and vertical are to be commended. However, there is no limit to that process and these activities are encouraged to be continued. Both the students as well as the staff members welcomed the earlier patient contacts introduced and comprehensive care approach which still have room for development. Positive attitudes towards profound infection control activities,

ergonomics and team work approach are also acknowledged. Faculty electives are well enjoyed by the students and offer variety of options for further development.

The research profile of the Faculty has been cleared and scientific activities have full support of the University too. Junior Research Club of the undergraduates is an excellent approach to increase appreciation and significance of scientific work as basis of high quality dental education. Exposure to scientific thinking and appreciation of evidence based dentistry could be still expanded through a compulsory research project by all the undergraduate students. Having a research laboratory specifically for oral health related research within the faculty might further support this notion. However, this should not undermine the fresh cooperation with the Medical Faculty and Faculty of Sciences in different research activities.

It was a great pleasure to witness several activities by the Faculty, staff and students in internationalization. It is of utmost importance to secure and support this also in the future. Thinking globally and acting locally calls for more outreach activities by the Faculty. A mobile clinic could give the students an expanded real world exposure and also serve communities in health education and screening. Excellent IPE course is certainly a modern educational approach which is now being also implemented vertically. This is to be acknowledged and further development into community practice opportunities is encouraged.

The Faculty is to be congratulated of the enthusiastic staff and motivated students. Their voice is heard in the activities of the Faculty. Maintaining this gives a good basis also for the good future of the Faculty.

Digitalization and use of IT for monitoring students' activities and patient care is well organized and surpassed that of many institutions in Europe. Quality management is well organized. Centre for Professional Continuing Education offers a lot potential for further development of the leading role of the Faculty not only in Lebanon but also in the Middle East Region.

The educational approach seems to be still based heavily on factual knowledge in a teacher centered model with limited time and incentives for the students to seek and

apply knowledge and gain deep learning through independent learning and self-reflection. This is not a good foundation for self-directed and lifelong learning.

All subject areas are spread out over a long time usually with one lecture per week over several years. This means that the student will have very many different subject areas in mind every week, which has been shown to be a hindrance to acquiring deep learning. A shift towards more intensive modules over shorter times and implementation of new learning philosophies has proven to be more effective in achieving deep learning. Another advantage of shorter and more intensive modules for some content areas makes it much more feasible to bring in a visiting professor for a shorter time, if the expertise to teach the module does not exist at present. When changing the educational structure to limit the number of topics in a week and making each more modular, it is possible to reduce the number of assessments and having them more continuously after each module.

The visitor is confident that the Faculty as a part of ADEE LEADER program has shown such activities in continuous quality improvement that will return rewards to it, its staff and students. At the core of LEADER is a commitment to continuous quality improvement and the Faculty seems to be on the right track to provide high quality dental education at all levels not only today but also in the future.