

Saint-Joseph University, Beirut-Lebanon

Faculty of Dental Medicine



Association for Dental Education in Europe

SCHOOL VISITATION
9-11 May, 2016



ADEE Visitors' Comments

Dental School Information

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Section 1- Introduction and General Remarks

The visitors are extremely grateful to the Saint-Joseph University and in particular its Faculty of Dental Medicine for their wonderful welcome and hospitality during the ADEE visit. We wish to thank Prof. Nada Bou-Abboud Naaman, Dean of the Faculty of Dental Medicine, Pr. Alfred Naaman, the Dean's Delegate for Education, the Committee for Education and the Heads of Departments, as well as all the staff and students at USJ Faculty of Dental Medicine for the honesty, openness and enthusiasm of their participation during the visit. We also wish to thank the Rector of the Saint-Joseph University, Prof Salim Georges Daccache for supporting this visit within the concept of openness and international cooperation that penetrates the University's vision.

Saint-Joseph University (USJ) is among the largest top five private Lebanese Universities. Founded in 1875 by the Compagnie de Jésus (Jesuits), it is the leading French-speaking University in Lebanon (nonetheless the English language constitutes a prerequisite for earning any degree). USJ Faculty of Dental Medicine has a significant role in the country's oral health sector, producing high quality and competent dental professionals. It is a non-profit private Dental School, one of three Dental Schools in Lebanon (the others being one private and one government supported), situated in the heart of Beirut.

Remarkable progress in all aspects of the curriculum has been made during recent years, complemented by a focused drive for further progress, due to the active and committed Dean and the staff. There is clear evidence of strong leadership and distributive management across the academic leads. Staff members are to be congratulated for their scientific proficiency and professionalism, as well as for their high morale, dedication and activities for the Faculty's development. Communication and relationships among staff members and departments seemed positive and warm, contributing to a constructive learning environment. Students were highly motivated, engaged, satisfied and appreciative; they contribute to the School's activities, evaluate the curriculum on a regular basis and cooperate with their medical colleagues in scientific and social events.

The self-assessment document prepared for our visit was of high standard, clear and exhaustive. This enabled the visitors to maximise discussions with the staff and students. All authors who contributed to the Self-Assessment Document should be commended. The obvious teamwork and preparation of the Faculty of Dental Medicine in the production of this document for the ADEE visit is very much appreciated. This self-assessment document, followed by the visit of the ADEE panel, contributed to a

greater understanding of the Faculty of Dental Medicine itself, an understanding of its role not only within the Saint-Joseph University, but also within the country of Lebanon.

The visitors strongly emphasise the importance of the **process** involved in the production of the self – assessment document to the Faculty of Dental Medicine. This actual process of self-assessment is the **most important aspect** of the ADEE review of the Faculty of Dental Medicine. It is through the self-assessment exercise itself that the Faculty can learn and advance the undergraduate programme towards excellence. The visitors hope that this ADEE review process has helped staff and students to acquire a better overview of the curriculum and this in turn should help interdepartmental integration, inter-professional collaborations and progress in all fields. It is recommended that the Faculty of Dental Medicine itself should repeat this self-assessment process periodically involving the entire faculty.

The observations included in this report are those of a team of four individuals from different countries, different backgrounds and perspectives. The visitors’ comments are offered for consideration and debate in the Faculty. It is important to remember that this ADEE visitation process is not part of any formal accreditation process. One of the main goals of ADEE is to promote convergence towards higher standards in Dental Education and it is hoped that this peer review process will contribute towards this convergence.

The overall view of the ADEE visitors is that the USJ Faculty of Dental Medicine is highly committed to the education of competent graduates. The Faculty has much to be proud of and can be confident in providing dental education at a level comparable to many Faculties in Europe. The production of the ADEE self-assessment document and the support for the document shows the desire of the Faculty of Dental Medicine to lead in the education of dental professionals within Lebanon and the entire Region.

Vision and mission

The USJ Faculty of Dental Medicine vision revolves around two main axes – teaching and research – to which a third element is added – civic engagement, addressed by various intra-mural and extra-mural initiatives. Its mission is “to provide undergraduate and postgraduate students with a quality education, high ethics, and to be able to conduct valuable research and professional development”. Fulfillment of this mission is apparent in all aspects of the organisational structure and the educational activities of the Faculty.

Section 2- Facilities

2.1. Physical Facilities

The USJ Faculty of Dental Medicine is located in the central area of Beirut, the Achrafieh District, adjacent to its Down Town area. The Faculty is located in the medical campus; it occupies 3 interconnected buildings and comprises all Health Faculties (Medical, Pharmacy, Nursing and Health Administration). All the Faculties on this campus share common spaces, such as the auditorium, classes, library, cafeteria, etc. The Faculty of Dental Medicine has access to all teaching, recreational and cultural facilities on campus. The total surface allocated is 2832 m²; the Dental Care Center covers a surface area of 1827 m² (including the pre-lab work area and the radiology building); the surface of offices covers 183 m²; classrooms pertaining solely to the Faculty cover a surface area of 230 m²; classroom surface areas used with the other institutions of the campus: 591.3 m². An open court and cafeterias offer students and staff opportunities for relaxation.

2.2. Clinical Facilities

The Dental Care Center is the place where patients are treated by the students and where the clinical teaching is performed. Dental clinics are efficient and satisfactory, with future plans for expanding the clinical area (photo 1). They are equipped with 97 dental chairs, distributed over 3 floors and 6 rooms, of which one room comprises 8 separate surgery units. The dental units were restored in 2006 and the dental chairs are continuously renewed on a 10 to 15-year basis. Quality of treatment and clinical teaching is of paramount importance for the Faculty, thus the Dental Care Center underwent an ISO 9001 certification procedure in 2012 for the first time, and again in 2015 for a renewal of the certificate. The Radiology department is well equipped with x-ray machines and a CBCT unit and an operational microscope is also available for treatment and teaching purposes.



Each student has its own working space, equipped with all the recent modalities including a computer. Apart from the conventional systems and materials necessary for the routine dental practice, the latest systems and materials are available to the students, e.g. rotary endodontic systems, a variety of implants, MTA, etc. USJ students are satisfied with the supply of dental materials; they reported that they “have all the materials and resources they need in for their clinical work”. Moreover, they emphasized that the Dean and staff immediately fulfil their demands for purchase of newly introduced dental materials and advanced technological systems. New modalities (Cone-beam Computed Tomography) have been introduced during the recent years and there are aspirations for more modalities (digital and microCT scanners). Visitors commend the Faculty on these impressive new modalities.

2.3. Teaching and learning facilities

The lecture halls and the small classrooms within the Dental School are appropriate for the needs of the students and equipped with suitable IT support. The Library is a common library for the entire Medical campus, available for all students and staff of all health sciences. It is regularly updated with both English and French editions and offers online access to journals and books, as well.

The Simulation laboratory is spacious and newly equipped with 25 simulators and the Room U is an ample, impressive space, housing large tables, where a group of 5 students can perform practical training (photo 2). A laboratory for working on fixed prostheses with CAD-CAM



technology also exists, as well as a number of additional rooms and laboratories dedicated to practical training and preclinical teaching. All laboratories and teaching facilities are suitable for preclinical education of the students and they are clean, well maintained and well organised. USJ students think they are well covered with the teaching and research facilities offered by the Faculty. Visitors feel that the up-to-date simulation laboratory and plans for expansion would facilitate greater flexibility within the curriculum.

2.4. Research facilities

A dental hard tissue research laboratory exists in the close-by Campus of Innovation and Sports and basic research laboratories exist in the Faculty of Medicine, Faculty of Pharmacy and Faculty of Sciences, which may be used by the Dental Faculty. The visiting team recommends that the cooperation with the above Faculties should be developed further in order to advance and promote the basic research opportunities for the staff and students of the Faculty of Dental Medicine.

Section 3- Administration and Organisation

The Faculty of Dental Medicine is one of the 5 Faculties housed within the Medical and Nursing campus of the USJ University. It is administratively dependent on the central University Administration and follows the policies and missions of the University, but it seems there is enough independence for the Dental Faculty to make its own policy decisions in educational and financial issues and promote its own aims and objectives for the advancement of dental education. The USJ Rector and central Administration seemed very supportive to the future plans and aspirations of the Dental Faculty and highly commended the recent developments and quality assurance processes. The Dean's role is decisive in this respect and it seems the present Dean is very capable and proactive in promoting the Dental Faculty's aims and highlighting its profile both locally and internationally. This is an opportunity the Faculty could benefit from for enhancing cooperation with the relevant Faculties for educational and research purposes, as well as for enhancing the unique identity of the school.

At the time of the visit, the Dean of the Faculty of Dental Medicine has been in this position for almost 10 years, after having her term renewed twice (each term lasts 4 years). She is an active, visionary, committed Dean, who has introduced many changes and innovations and constantly supports and motivates the staff and students. The new Simulation lab, the ISO certification, the purchase of new digital equipment, the re-organisation of the School's administration and Committees and the changes in learning and assessment (thesis, OSCE) are some of the updates she has supported during her term. The visiting team feels that the current Dean is a positively motivating factor for the Faculty's further advancement and road to excellence. The team believes that the Faculty of Dentistry is fortunate to have such a skilful and forward thinking Dean and her team with a very dedicated academic and administrative staff.

Within the administrative organogram of the Faculty, it is apparent that the Dean is the person responsible for almost all activities of the Dental Faculty, including management, administration, strategy, teaching, research, organising the assessments, budget management and allocation, signing of contracts and agreements, appointing, promoting and dismissing of staff and general personnel, managing the Dental Care Center and chairing the Committees, Council and Boards. The Dean is supported by the Vice-Dean (a position which was vacant at the time of the visit), the Delegate for Education, the Faculty Council and the Heads of Departments and Units, manned by staff members. Worth mentioning is the Quality Management Unit, which operates in a comprehensive and up-to-date manner, with the aim to evaluate all aspects of the school and introduce international quality standards. Students' involvement in the planning process of the curriculum is not formal, as students' representatives do not formally or regularly participate in the Council, Committees or other bodies. Students may cooperate informally with the Dean –if they wish to – as their small number (50 new students each year) permits a direct cooperation and a student representative may be invited in the Education Committee whenever the agenda requires it. Students produce and submit a report to the Rector and they also evaluate the courses at the end of each semester through an online evaluation system. Although the small number of students permits personal cooperation and exchange of views, which is to be commended, the visiting team would moreover recommend that students' elected representatives would formally and regularly participate in the Council, Education, Quality Management and other Committees, as their feedback, views and opinions could greatly advance the Faculty's educational issues and the introduction and support of relevant reforms.

The organogram of the Faculty shows that it is structured in the traditional departmental manner, comprising 9 Departments, each one having its Head of Department and including the relevant Disciplines. A number of Units and Committees manage different aspects of the administration process (education, quality monitoring, continuing education, publications, basic sciences, etc). To further promote the efficiency of administration, the visitors would propose that more distributive administration could be implemented, that would allocate more responsibilities and decision-making opportunities to the various Committees, with the aim to both facilitate the Dean's overloaded schedule and to create an inclusive, supportive environment.

The Faculty is basically self-funded, with no state / government funding being received, as it is a private organisation. Financing for the Faculty comes from donations, students' annual tuition fees as well as from the dental care fees of the patients treated in the undergraduate and the postgraduate clinics.

Section 4- Staff

The team had the opportunity to meet with groups of staff from all disciplines, Departments and Committees. They found the clinical, academic and administrative staff at the USJ Faculty of Dental Medicine to be welcoming, positive, enthusiastic and open-minded. The staff members were highly qualified dental professionals, many of whom have undertaken studies abroad (in Europe, U.S.A. and elsewhere) and have implemented their knowledge and experiences in the Faculty. The visiting team was very impressed by the honesty, warmth and admirable cohesion apparent during the visit. The leadership and teamwork is to be highly commended as well.

In the USJ Faculty of Dental Medicine, there are two academic staff categories: the tenured staff members (32 persons) and the supportive staff, mostly general practitioners contracted for one year (109 persons) and engaged in clinical teaching. All the tenured staff is employed on a part-time basis, namely half of them work in the School for 20 hrs/week and half for 30 hrs/week and only one staff member (namely the Dean) works full-time. Staff is considered adequate for the clinical part of the curriculum. The part-time academic engagement offers the staff the opportunity to work in their private practices, thus enriching their clinical experiences, but, on the other hand it could disrupt the educational continuity of their academic duties and limit their time dedicated to research projects. Visitors feel the School could benefit from more full-time staff members, who would ensure a continuous academic engagement and establish strong relationships with the students, as well as actively pursue their research interests. To that end, the recent decision to employ more full-time faculty members is to be commended.

Many staff members, apart from their dental studies, have additionally undertaken pedagogical studies for 1 year in the Pedagogy School of the University. This initiative is supported by the Faculty and it is highly commended by the visiting team, as it enhances the quality of education offered in the Faculty. For staff promotion, 3-4 publications every 3-4 years are required.

New tenured staff is recruited by the University, following the Dean's proposals, whereas new supportive staff is recruited by the Dean and the Faculty Council. Staff recruitment does not seem to be a concern for the Faculty, because a large number of highly qualified candidates apply for the advertised teaching positions, thus the best could be selected to fill the specific academic post.

Comprehensive staff development programmes are not formally organised within the Faculty, apart from the pedagogical education some staff members receive. The team members propose that a more structured approach to staff development is organised, including educational methodologies, assessment methods, e-learning, career advancement, peer-learning, researching and reporting, writing and publishing, etc, so that the staff members could be regularly and comprehensively updated on educational and personal professional development issues.

Section 5- Curriculum content and methods

Undergraduate curriculum extends over a five year period and successful graduation requires the completion of 300 ECTS credits, in line with the framework of the ECTS system. The credit hour system is applied throughout the University, allowing the study flexibility and comparability. The Learning Unit (LU) is used to describe a learning activity with allocated credits.

In its curriculum, the USJ Faculty of Dental Medicine is guided by the proposals and the philosophy set out in the ADEE Profile and Competences document (*Cowpe J, Plasschaert A, Harzer W, Vinkka-Puhakka H and Walmsley AD: Profile and Competences for the graduating European dentist-update 2009. Eur J Educ 14:193-2010*). There are key competences for the graduating dentist, as well as for each Learning Unit and course. The development of the curriculum mapping including the competences is welcomed as it facilitates the integration of the curriculum both horizontally (within the academic year) and vertically (throughout the entire programme). The panel of ADEE visitors welcomes this approach.

The undergraduate curriculum is discipline-oriented, administered under 9 Departments, and has a rather rigid structure, where a certain degree of integration exists between dental and medical subjects, particularly during the pre-clinical phase. In relation to that, students reported it is challenging for them to transfer the theoretical knowledge they acquire in basic sciences in their clinical practice. The medical/basic sciences subjects should be organised and scheduled in the curriculum to support students learning in dental subjects. For example, certain medical and basic sciences courses could be briefly and selectively repeated - in an integrated manner - during the 4th and 5th years of study, when the students have already enough clinical experience and they are capable to apply the medical concepts within their dental clinical practice. Most basic/medical subjects are taught by staff members of the Medical, Pharmacology or other sciences Faculty, but effort is made to either develop dentistry-orientated courses or focus on dental aspects during the last few sessions of the course or during the second part of a given course. Such approach is optimal and recommended; further integration and

cooperation between Medical / Basic Sciences and the Dental Faculty is recommended to establish the learning objectives of relevance to dentistry.

The staff: student ratios are good, with a combination of professional staff and postgraduate students supervising the undergraduate students. Elective courses exist within the pre-clinical years, including dental, medical and general courses. In certain courses, dental students cooperate with their medical colleagues and this activity presents an opportunity for enhancement of inter-professional education. Further enhancement of inter-professional education is recommended.

Pre-clinical phase extends during the first 3 years, including lectures, seminars, optional courses, laboratory practice, phantom training and assignments. Teaching and practical laboratory training of certain dental disciplines (restorative dentistry, dental materials, fixed prosthodontics) are introduced early in the curriculum, in the 2nd year. Students contact with the clinics starts as early as the 1st year, during the “Clinical Observation” course, when they observe their senior colleagues treating patients. In addition, undergraduate students assist the postgraduate students in their clinical work once a week. The clinical practice of students begins at the 2nd semester of the 3rd year, when students perform on each other some elementary dental activities, e.g. scaling, taking impressions, and practicing on patients starts at the 4th year. The above elements of the curriculum are in line with the current dental curricula developments, where early introduction of dental subjects and early patient contact is recommended. Visitors feel both clinical teaching and practice could start even earlier (e.g. at the 2nd year).

Clinical practice and patient treatment is discipline-based and students perform a large number of independent restorations (prosthetic, endodontic, restorative) on patients; comprehensive patient care is introduced in the 5th (last) study year, where each student treats approximately 10 patients in an integrated manner. The visiting team suggests that earlier comprehensive patient care could be established to replace a number of independent treatments.

Lectures are currently extensively used as a method of content delivery and a degree of overlapping and repetition of content exists, but it is considered as beneficial from the students, as they may critically evaluate different viewpoints on the same subject. Application of other innovative educational modalities also exists: a modified problem-based learning (case-based learning) course is taught during the 2nd year, where several cases and clinical problems are presented to the students, who are then asked to study them, discuss them and propose solutions. This course is a recent introduction in the curriculum, alongside with other educational developments: the “Portfolio” course of the 4th year

educates students, in an active manner, on how to organise, write and present a comprehensive patient case. The Portfolio includes 5 different patient cases (a restorative case, a periodontal, endodontic, etc), where the clinical problem, treatment and relevant references are presented in a written dossier, accompanied by photographs. The development of a 30- pages Thesis is another recent introduction in the curriculum, being required by the final year students for successful graduation. A number of interesting, current courses exist in the curriculum, such as the Academic Writing, Literature Review, Strategies for Individual & Community Empowerment (Wellbeing), Medical & Dental English, Scientific Writing & Presentation, Accounting & Introduction to Financial Statements, Operational Management of Dental Practice. All these courses reflect the Faculty's desire to update the curriculum in line with the international guidelines and educational developments and there are to be commended by the visitors. Further development of clinical scenarios with integration of sciences is recommended.

The interest of the staff in innovative educational methods is obvious and the provision of support for further educational training ("teaching the teachers") should be encouraged. Different educational methods are available, which should be explored and implemented in line with student-centred learning. The introduction of innovative learning methods will also reinforce the inter- and intra-departmental integration of clinical courses (e.g. modules).

Assessment methods are varied and comprehensive, including all aspects of knowledge. Assessment methods are aligned to the intended learning outcomes and aim to ensure the achievement of competences. Both summative and formative assessments are employed, as well as written and oral examinations. Grades from the theoretical assessment and the clinical evaluation are combined. Through continuous assessment, students not progressing well are identified and the necessary academic support is offered to them.

Practical and clinical skills are assessed continuously during the clinical work and students are informed ahead on the grades allocated at each step of the process. A comprehensive OSCE examination takes place in the 5th year, including 13 stations, which is perceived as very useful from the students, as it prepares them for the final exams. As OSCEs are considered imperative for clinical evaluation, the Faculty is commended on implementing this assessment method. Self- assessment or peer-assessment opportunities do not formally exist; the Faculty could explore these assessment methods, which both enhance critical thinking and affirm the acquired knowledge. Assessment methods should be further developed to include active learning, for example implementation of OSCEs in earlier years, Case-

scenarios etc. It would be desirable to integrate the assessment of various courses, assessing less often – perhaps - but integrating courses (subjects) by assessment methods.

The Education Committee, chaired by the Dean, oversees all aspects of the curriculum. A students' representative may participate in the Committee upon invitation, whenever the subject discussed is of relevance to students' interests. In addition, students develop a report on their experiences and present it to the Education Committee at the end of each year. The visitors would propose that a more formal and regular student participation in the Committee would be beneficial for the undergraduate education. Student involvement with the planning process of the curriculum and their learning experiences will also help direct the education towards a more student-centred, active process. Visitors feel that the Education Committee is efficient and active, constantly trying to update the curriculum to meet the international standards. This shows that the dental curriculum is truly dynamic.

Section 6 - Medical and Biological Sciences

Biological and Medical Sciences are taught in cooperation with other Faculties (Science, Medical, Pharmacy) within the first study years. The staff is to be commended on their enthusiasm and desire to improve and develop. Improvement of communication channels between Faculties and their staff members would support these aspirations. Biomedical sciences are the key to support clinical care, provide understanding of the culture of Science and develop critical thinking and informed decision-making. Biomedical sciences should be dentistry-orientated and visitors noticed that constant effort is been made to that aim. For example, certain teachers are focusing on the dental aspects of their subject (e.g. Pharmacology, Human diseases) or they modify the advanced section of the content to be dentistry-related (e.g. Anatomic Pathology). Further horizontal integration between biomedical sciences, as well as vertical integration throughout the curriculum is essential and strongly recommended by the visitors. For example, as mentioned before, certain medical and basic sciences courses could be briefly and selectively repeated - in an integrated manner - during the 4th and 5th years of study, when students have already developed the clinical understanding and reasoning necessary for successful integration of knowledge. This would strengthen the clinical evidence and relevance of basic and medical sciences' competences.

Section 7 – Dental Public Health and Behavioral Sciences

These subjects constitute 23 ECTS credits, which is a considerable part of the curriculum. It seems the public health element of the curriculum is adequately addressed. It is important to highlight that “civic engagement” is considered one of the three fundamental Faculty’s missions, together with teaching and research.

There are continuous efforts to improve the population’s oral health levels both by addressing public health concerns and by treating intramural regular patients. In addition, faculty members and students are actively engaged in solidarity actions with special care patients, refugees and other underprivileged population. Students are introduced to community work, including oral health education sessions and conferences addressed to schoolchildren and educators, taking place either in the dental school or in the field (schools and institutions for children with special needs). They are also required to develop an educational-informative poster with the aim to convey a message to the community. The Faculty also participates in the humanitarian program entitled “Operation 7th Day”, organised by the University and aiming at offering volunteer work to the community. Faculty is highly commended on all the above initiatives and educational methods, which offer valuable experiences to the students and empower them with moral values, social skills and understanding.

Section 8 - Orthodontics & Paediatric Dentistry

Orthodontics

The orthodontic teaching is delivered via lectures, practical and clinical work. Emphasis is put on the diagnostic aspect of Orthodontics, which is a very important component of teaching Orthodontics. Good orthodontic skills are required in clinical practice especially in relation to orthodontic assessments and the timing of orthodontic intervention. Undergraduate students perform preliminary clinical examinations, diagnoses and treatment planning. Groups of 5th year students present a complete clinical examination of a patient using PowerPoint (clinical, radiological and dental diagnosis). Visitors suggest that there is room for a more active participation of the students in the treatment process, possibly in cooperation with the Orthodontics postgraduate students. In orthodontic patient care, the treatment is extended over eighteen months to two years; consequently it is important that orthodontics is

introduced early in an undergraduate dental programme to permit students to experience the duration of treatment in a range of cases.

Paediatric dentistry

Paediatric dentistry is taught within the Department of Paediatric and Community Dentistry, a Department that ensures good integration between the two subjects, supports the interdisciplinary approach and encompasses many important components of dental education (dental public health, prevention, ethics, communication, management and ergonomics, etc). Students perform clinical work on paediatric patients during their 5th year, when they encounter some difficulties in managing the patients. Earlier contact with paediatric patients could be beneficial for the students to acquire the necessary skills. In addition, paediatric dentistry is the ideal subject for students to be exposed to the benefits of team work and 4-hand dentistry, as current practices suggest (although it is appreciated that this may not be common practice within the region). Further integration within the Department (including Orthodontics, for example) would support the interdisciplinary approach and provide opportunities for joint research activities.

Section 9 – Restorative dentistry

The Section of Restorative Dentistry includes the Departments of Restorative and Esthetic dentistry, Endodontics, Fixed and Removable Prosthodontics and Occlusion, as well as the subject of Material sciences and the inter-departmental subject of Implantology. All staff was very enthusiastic and eager to learn and enhance the quality of the respective educational programs. The relevant curriculum contains pre-clinical and clinical phases, the latter starting at the 4th year. Earlier patient contact (treatment of simple operative cases) is recommended, as the current educational guidelines suggest. Programmes are thorough with clear progression points and clear development of practical skills. Clinical teaching is in line with current treatment modalities and the clinical facilities and equipment are satisfactory and up-to-date (e.g. the students may use the ProTaper endodontic rotary system, after having completed 20 endodontic therapies by conventional methods). However, the courses seem to be mainly treatment-orientated; care should be taken to ensure the biological approach of dental diseases and an increase in the preventive approach to clinical care.

Several aspects of the education on Restorative dentistry are to be commended: (a) 2nd semester students enter the clinics and observe the 4th and 5th year students during their clinical work, through an *active clinical observation* system, where they take notes and present them afterwards to their tutors /colleagues, (b) mobile dental photography equipment is available for documenting aesthetic patient cases, which are then presented by the students and evaluated based on specific criteria, (c) a modified problem-based learning methodology is used in early endodontic education, (d) formative assessment is used in theoretical, pre-clinical and clinical phases, as well as clinical cases presentations; strengthening of the competence-based evaluations is recommended, (e) fixed prosthodontics are linked with occlusion and TMJ, which ensures an integrated approach, (f) an interdisciplinary course, including prosthodontics, endodontics, periodontology, oral surgery and orthodontics is taught during the 4th year, which enables students to acquire a broad perspective on clinical work and perceive the patient's needs in a comprehensive manner, (g) students are introduced to removable prosthodontics early in the curriculum, through simple cases and repairs.

Removable prosthodontics may present a time-related challenge, as by its nature it requires a significant amount of time for completion of any prosthesis and the patients waiting time is considerable. To that end, consideration could be given to increase the clinical time or the weekly sessions of removable prosthodontics, thus facilitating both students and patients. Material sciences are introduced early in the curriculum (2nd year), which is to be commended, but simultaneously, this early introduction may be challenging for the students who are not yet familiar with the clinical practice and relevant terminology. It is therefore proposed that Material sciences could benefit from a vertical curriculum approach. Visitors noticed that the Implant dentistry program is in line with the current European guidelines for undergraduate implant education and the Faculty is commended on that.

In the 4th year undergraduate students perform patient treatment through speciality areas and the care is treatment-based. It seems that students have extensive endodontic and fixed prosthodontics education, as they are required to perform a high number of treatments to patients. Comprehensive patient care is practiced only during the 5th year, for approximately 10 patient cases / student. Higher standards in dental education propose that comprehensive patient care should start as earlier as possible, e.g. during the 3rd year and continue throughout the duration of the studies. Only by holistically treating patients can the students master the necessary professional competences, in all aspects. Clearly there are challenges with this approach but the visitors feel the benefits are significant.

Section 10 – Oral diseases of bone and soft tissues

The Section of Oral diseases of bone and soft tissues includes the Departments of Oral surgery, Diagnosis and Oral pathology, Periodontology and the Radiology Unit.

In Oral Surgery, students practice a range of surgical procedures, extending from simple extractions to more complex cases, such as surgical extractions (impacted third molars and canines), pre-prosthetic (soft and hard tissues), endodontic surgery, etc., which is a positive aspect of the discipline. Students learn to perform local anaesthesia, write a prescription and provide pre- and postoperative care as early as the 3rd year, which is commendable. The transition from pre-clinical training to clinical practice is – as usually – challenging; it could be facilitated by introducing an observation period (again, as mentioned before, the 4-hand dentistry could be beneficial for that purpose), or by introducing pre-clinical training on patient simulators. The Oral Surgery Department does not at present collaborate with the Medical school, so there are no outreach (hospital) activities for the undergraduate students. Oral Surgery is well staffed with a good spread of patients, offering diverse clinical experience and an excellent student: instructor ratio of 1:1 in the clinics.

Diagnosis and Oral pathology extends from the 2nd to the 5th study year. The Department provides valuable experience in oral diagnosis and treatment planning. The high number of patients reaching the Faculty for diagnosis and treatment offer opportunities for tackling a variety of dental cases, providing an efficient organisation/rotation system exists, permitting the students to encounter adequate and variable number of patients. Visitors feel that structure of clinical experience needs to ensure that the students have good general diagnosis and treatment planning skills. The individual research project undertaken by the students is commendable, as it reinforces active learning and critical thinking.

Clinical training on Periodontology starts at the second semester of the 3rd year, when students perform minor procedures (scaling) on each other. This early introduction is to be commended and could be further reinforced by an even earlier clinical introduction, for example an introductory clinical course could start at an earlier year (e.g. 2nd) with exposure of students to healthy periodontium, simple clinical work, etc. Periodontology offers the opportunity for identification of risk and early patient contact and is closely related with prevention and oral health education. Periodontology education is partially integrated with endodontics, orthodontics, fixed prosthesis and implant dentistry during the 4th year course. Further integration is advisable, as well as integration with biological sciences, public health

and preventive dentistry. The OSCE evaluation of the 5th year is a positive element of education and assessment.

Radiology education includes taking and interpreting all types of radiographs (intra- and extra-oral), as well as diagnosing CBCT images. Faculty is commended for providing the latest radiological systems and equipment. Oral Radiology educational content is closely related with Physics and Anatomy content, thus an integrated approach to these subjects will be beneficial for the in-depth understanding of image creation, image interpretation (including pathology) and radiation protection. This integration is ideal for the students to get a multidisciplinary perspective and be able to transfer the basic sciences knowledge in their clinical practice (vertical integration). Integrated assessment (OSCE) could also be an option.

Within the present context, the basic sciences (Biology, Physiology, Anatomy, Immunology, Histology) share common educational content with the dental disciplines included in the “Oral diseases of bone and soft tissues” (Oral surgery, Diagnosis and Pathology, Periodontology, Radiology). The visiting team would propose an integrated approach to these disciplines/subjects (vertical integration throughout the curriculum). A good integration of basic-biological sciences into clinical disciplines allows the students to apply the theoretical basic knowledge to their clinical activity and strengthens the relevance of basic and medical sciences’ competences. The enthusiasm and activity of the staff allows further development and integration of the courses.

Section 11 - Scientific education and development

During the past 5-10 years many developments have occurred, including the introduction of new learning units, new teaching and learning methodologies, current assessment methods, small scale integration of subjects and others, all reflecting informed efforts of the Dean and staff to update the curriculum. Visitors commend the Faculty on these developments and suggest that they should be continued and reinforced.

Among the new learning units is the “Clinical observation literature review”, which was introduced 5 years ago and is very popular among the students. Students receive an introduction to literature search in books and journals, on Medline and the various databases. They then do a clinical internship in the different departments (except orthodontics) at the Dental Care Center and submit an individual internship report by the end of the first year. The course gives the “fresh” students the opportunity to

actively experience the working environment of the profession they chose and they are going to practice for the duration of their professional lives.

“Problem solving” is another newly introduced (3 years ago) course. Students work in groups on predefined subjects given by the mentors, to explore them and propose evidence-based solutions. Students manifest a keen interest in participating in this kind of learning experience. The benefits of such a course are multiple: students learn the team work, they develop critical thinking and problem-solving skills, they perform research in a scientific manner, etc. Further extension of this course or similar is highly recommended.

Development of students’ critical thinking and scientific development are achieved through a variety of additional learning activities: portfolio, thesis, scientific writing, statistics, medical and dental English and others. The “Portfolio” course of the 4th year educates students, in an active manner, on how to organise, write and present a comprehensive patient case. The Portfolio includes 5 different patient cases, where the clinical problem, treatment and relevant references are presented in a written dossier, accompanied by photographs. The development of a 30- pages Thesis is another recent introduction in the curriculum, being required by the final year students for successful graduation. Usually, this work consists of a literature review and rarely of a research project. There is an opportunity here to increase the research capabilities of the students by allocating them a small scale research project (instead of a literature review), suitable for their level and timeframes, e.g. epidemiological data from the clinics, descriptive statistics of the patients profiles, registration of the quality of radiographs based on specific criteria, etc or active assistance of a postgraduate student / staff member in their original research. Faculty should avail of this opportunity to enhance its research profile.

“Statistics” is a subject related to performing and evaluating research projects. The course includes examples of dental relevance and students learn to interpret the statistical results of researches. “Scientific writing” addresses the fundamentals governing the writing of a scientific article and the rules for scientific oral presentations and “Medical and dental English” enables the French-speaking students to master the English language and terminology. All these courses reflect the Faculty’s desire to update the curriculum in line with the international guidelines and educational developments.

Within the context of scientific education and development, it could be noted that students would benefit from a more structured course on Evidence-based Dentistry (EBD) and a compulsory course on Interprofessional education (IPE). EBD education will enhance their critical thinking and the informed

application of scientific methods in clinical practice. Moreover, it will promote their lifelong learning competences. Visitors support the inclusion of EBD vertically in the curriculum in a more structured format. A course on Interprofessional education (IPE) would highlight the interprofessional approach, as students already informally cooperate with their colleagues from Medical, Pharmacy and Science Faculties during the scientific meetings and social events and they attend the general optional courses together. This informal cooperation could be organised in a more structured manner through the development of a joint IPE course, where, for example students of all relevant Faculties would work in groups to address a real-case scenario. IPE holds great potential, as this concept could be applied to organise interprofessional activities at the community level.

Section 12 – Integrated dental care

In the USJ Faculty of Dental Medicine the curriculum is departmental, based on the different disciplines and patient treatment follows the same pattern. During the 4th year, undergraduate students perform patient treatment through speciality areas and the care is treatment-based. Comprehensive (integrated) patient care is practiced only during the 5th year, for selected patient cases (each student treats about 10 patients in a comprehensive manner). Higher standards in dental education propose that integrated patient care should start as earlier as possible, e.g. during the 3rd year and continue throughout the duration of the studies. Only by holistically treating patients can the students master the necessary professional competences, in all aspects. This curriculum transform presents significant organisational, space-related and time-related challenges, but the benefits for the graduates' competences are significant.

The “Case presentations” of the 5th year, where students tackle clinical problems working in groups and the “Portfolio” offer valuable theoretical background to the holistic clinical practice. Further enhancement of the portfolio concept will promote students' critical analysis of patient's integrative management.

Section 13- Student affairs

During the visit, the team met with undergraduate and postgraduate students' representatives. The visiting panel were highly impressed with the groups of students and found them to be extremely motivated, committed and open-minded. The interviewed student groups are to be highly commended. The panel was also very impressed with their teamwork, faculty engagement and social awareness.

Good relations between professors and students were apparent, fostering a congenial environment that moves to the alumni. There was positive feedback about the relationship between students and staff. The representatives said that the interaction with the staff members is very positive and efficient and they felt that the student voice is being heard, since the suggestions for curriculum changes they make are taken into consideration and the demands for purchase of new material or equipment are fulfilled.

Groups of 3-5 first year students are assigned a senior student to act as his/her tutor. Students are continuously monitored by their tutors and staff and all problems are identified and tackled (regarding progress, issues of concern or even medical/physical conditions e.g. dyslexia, etc). This close monitoring and cooperation is enabled by the small number of students (50 students) entering the Faculty of Dental Medicine each year. In the clinics, undergraduate students assist postgraduate students during one day/week, and in addition, the postgraduate students have an educational role in the undergraduate curriculum, as they work as clinical staff in the undergraduate clinics, assisting the undergraduate students. It is recommended that the communication channels between senior and younger students are strengthened and the tutoring and mentoring system is further enhanced.

Students' involvement in the Education/ curricular Committees is not formal, as students' representatives do not formally or regularly participate in the Education Committee or Faculty Council meetings. Students may cooperate informally with the Dean –if they wish to – as their small number (50 new students each year) permits a direct cooperation and a student representative (elected delegate) may be invited in the Education Committee whenever the agenda requires it. Students produce and submit a report to the Rector and they also evaluate the courses at the end of each semester through an online evaluation system. Although the small number of students permits personal tutoring and cooperation, which is to be commended, the visiting team would moreover recommend that students' elected representatives would formally and regularly participate in the Council, Education and Quality Management Committees, as their feedback, views and opinions could greatly advance the Faculty's educational issues and the introduction and support of relevant reforms. Students' participation in the Committees and the decision-making processes of the Faculty enhances the quality and relevance of education, as well as the student-centred profile of the school. Further engagement of students in the planning of the courses would bring the students' views into planning and would facilitate a more student-centred curriculum.

USJ dental students are socially very active and cooperate with their colleagues from the Medical School and other Faculties in scientific and social events. They assist in the organisation of the "7th Day

Operation” event (Opération 7ème jour) and they intend to create an Association of Dental Schools in Lebanon during the forthcoming biannual meeting.

Section 14 – Research

Scientific research is one of the main objectives of the higher education institutions and USJ Faculty of Dental Medicine is no exception. Research is one of the three main pillars of the Faculty’s mission. Research activity is at present under-developed; funding is a challenge, as well as organisational and structural issues. Basic research is performed in cooperation with the Pharmacy or Sciences Faculties, where suitable facilities and equipment exist. Staff mentioned there are difficulties in publishing in highly indexed journals and language issues could be sometimes a concern. There is a dedicated office within the University managing the grants and performing all bureaucratic paperwork and a Committee within the Faculty who assist researchers in their applications for funding.

Research culture of the Faculty is gradually developing and publications have been increased during the past years. Increasing research output is a main objective of the Faculty’s future strategy. This, however, should be developed in a multi-faculty and international context; collaborations with other Faculties, as well as with external institutions and organisations would be beneficial. Equally importantly, the Faculty could create a research policy allowing concentration and in-depth scientific work of the staff and students. Therefore, the visiting team would suggest that (a) establishment of a coherent research strategy and (b) increase of interdisciplinary and inter-institution communication and collaboration are key elements for advancing the research profile of the Faculty.

The research activities of a Faculty have a direct effect on the appreciation of the value of the research among undergraduate students. Undergraduate students perform some elementary research projects (literature reviews, case presentations, thesis) during their studies, but they would appreciate more research opportunities during the undergraduate curriculum. The research activities included in the undergraduate programme increase the students’ awareness of current advancements in oral health globally and nationwide. A compulsory research project (e.g. a research-orientated thesis) is strongly recommended for the undergraduates to advance critical and scientific thinking, as well as enhancement of their involvement in basic research and scientific research projects.

Postgraduate students are encouraged to participate in scientific meetings and conferences, where they present posters and oral presentations. Faculty’s support for participation in meetings and international conferences is an important element of the School’s “internationalisation”..

Section 15 – Summary

The University Saint Joseph is to be commended on their Faculty of Dental Medicine. The ADEE visitors were impressed with both the academic and the general administrative governance structures at USJ. The recent developments in the curriculum and infrastructure, initiated and implemented by the active and dedicated Dean, are of a high standard and the Faculty of Dental Medicine is privileged to have the full support of the University for these improvements. Staff members are to be congratulated for their scientific proficiency and professionalism, and the students are to be commended on their dedication, high quality and active involvement.

The overall view of the ADEE visitors is that the Faculty of Dental Medicine is highly committed to the education of competent graduates, constantly striving to improve and update the educational environment. Visitors hope that their constructive comments and recommendations will contribute to the achievement of a higher level of dental education within USJ Dental Faculty in accordance with the Faculty' aims and visions and with the European and international standards.

Section 16 – Visitors' Key recommendations

- ▶ Alignment of the curriculum (competences, core curriculum, courses, learning outcomes and assessment)
- ▶ The biological understanding of dental disease should be emphasized throughout the curriculum
- ▶ Review timetabling to balance students workload
- ▶ Integration- communication - collaboration
- ▶ Expand the Quality Management System to incorporate quality assurance for all aspects of dental education.
- ▶ Strengthen evidence-based approach and lifelong learning
- ▶ Peer support for the students throughout the undergraduate program
- ▶ Further develop variable assessment methods aligned to competences
- ▶ The Dental School of USJ is working well and has made positive changes to the curriculum to enhance students' education
- ▶ Implementation of the recommendations will further improve students learning experience and help the Dental School to achieve its mission
- ▶ The visitors commend the Dental School of USJ and the Dean on their openness to invite external bodies such as ISO and ADEE to independently review the curriculum and institute