The New York University College of Dentistry Academy of Distinguished Educators is an expression of the commitment of the University to excellence in teaching, learning, and scholarship in education. The professoriate of the University is composed of women and men who search for new knowledge, foster learning, and provide service to the public. It is the belief of the Academy that faculty members should also be given opportunities to learn and grow in the practice of teaching. The vision of the NYU Academy of Distinguished Educators is to build a pedagogical environment in which teaching is valued as an essential part of academic life.

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ABOUT THE SHOWCASE

The Clinical & Educational Scholarship Showcase is sponsored by the Academy of Distinguished Educators for the purpose of highlighting the breadth of scholarly clinical and educational work being done by the faculty at New York University College of Dentistry.

The specific goals of this program are:

- To promote the outstanding patient treatment and teaching being performed at NYUCD
- To emphasize the role that faculty play in both the education of our students and the treatment of our patient population
- To give faculty and students an opportunity to present examples of their work to the University community
- To give faculty a venue for academic portfolio development
SCHEDULE

WEDNESDAY, APRIL 4, 2012

Poster Viewing 12:00 pm - 5:00 pm
Location: Commons

THURSDAY, APRIL 5, 2012

Poster Viewing 8:00 am - 6:00 pm
Location: Commons

Keynote Lecture “Engage, Educate, Excel!”
Leila Jahangiri, D.M.D., M.M.Sc.
4:00 pm - 5:00 pm
Location: Commons

Awards Ceremony & Reception 5:00 pm - 6:00 pm
Location: Commons
Refreshments Served

FRIDAY, APRIL 6, 2012

Poster Viewing 8:00 am - 4:00 pm
Location: Commons
LEILA JAHANGIRI, D.M.D., M.M.Sc.

Clinical Associate Professor and Chairperson
Department of Prosthodontics
New York University College of Dentistry

Dr. Leila Jahangiri completed her B.D.S. at King’s College, University of London, England; followed by her D.M.D., Certificate in Prosthodontics, and Masters of Medical Sciences (M.M.Sc.) degrees from Harvard School of Dental Medicine.

She has been an active clinician, researcher and teacher since 1991. Having taught undergraduates and residents in dentistry and Prosthodontics at Harvard, the University of Medicine and Dentistry of New Jersey and New York University College of Dentistry, her expertise has evolved into developing innovative curriculum and focusing on teaching effectiveness.

Dr. Jahangiri was on the original team that helped to convert Harvard School of Dental Medicine’s curriculum to Problem Based Learning. As an active member and fellow of numerous organizations, she serves on the editorial board of the Journal of Prosthetic Dentistry, and is currently an Advisory board member of the Institute for Professional Development, Associated Medical Schools of New York (AMSNY), with a special focus on developing strategies for teaching effectiveness.

Since 2002, she has served as the Chairperson for the Department of Prosthodontics at New York University College of Dentistry, where she is responsible for implementing an extensive pre-doctoral implant program. In addition to her active role in the Prosthodontics predoctoral education, Dr. Jahangiri is responsible for management and oversight of postgraduate Prosthodontics programs at NYU.

Over the past several years, she has conducted numerous workshops and seminars on teaching strategies, faculty development, curriculum design, consensus building, and learning outcomes. Dr. Jahangiri’s extensive teaching has spanned small group discussions to large presentations in front of audiences of up to 10,000.

In her supervisory role of over 70 faculty and more than 360 students per class, Dr. Jahangiri’s passion remains with teaching and impacting contemporary education by optimizing learning experiences with new content and technology.
In the natural dentition, centric relation (CR) does not usually coincide with the position the mandible assumes when the teeth are in maximum intercuspation/centric occlusion (MIP/CO). Centric Relation is considered the most reliable and reproducible reference point for accurately recording the relationship of the mandible to the maxilla. Studies demonstrated in both the Prosthodontic and Orthodontic Literature support a concept of Centric Relation as an area in three dimensions. Patients may demonstrate a discrepancy [with or without occlusal splint therapy (deprograming)] and not have symptoms. This could be due to the patients’ adaptive ability. These cases are about the patients that cannot adapt to this discrepancy and demonstrate wear and decreased Vertical Dimension. The records consisted of a written patient history, a clinical exam, and study casts mounted on a semi-adjustable articulator. In order to capture a true stable unchanging centric position a Maxillary Anterior Guided Orthotic deprograming splint (MAGO) was used. Once CR records were taken, patients were rehabilitated at new vertical dimension with single unit FDPs. CPI registrations were taken pre-treatment and post-treatment to measure the difference between the axis of the articulator, representing the terminal hinge axis of the patient (CR), and the mandibular hinge axis in CO/MIP.
AESTHETIC DENTISTRY: A CLINICALLY STRUCTURED APPROACH TO INTERDISCIPLINARY TREATMENT PLANNING

John Calamia, Alex Shalman, Rebecca Poling

Poster details the process of creating a comprehensive treatment plan for a clinically complex patient by combining elements of orthodontics, periodontics, oral surgery, and restorative dentistry in order to create proper esthetics, occlusion, function, and treatment success for the patient. This case-planning presentation will include a comprehensive problem list for both esthetic and functional aspect, as analyzed by different specialists. We will discuss potential clinical problems that we foresee, and then provide an ideal treatment plan for this patient. The reader will learn what each specialty looks at as the most important element of treatment planning.

PAPILLON-LEFEVRE SYNDROME: A CASE REPORT

Marie A. Congiusta, Donghyun Koo, Veena Nanda, Angela Kamer

Papillon-Lefevre Syndrome is a genetic disorder with palmoplantar keratosis, sometimes also involving the knees and elbows. The disease also has an oral component, which manifests as severe periodontitis. It is often first diagnosed by a dentist who may see the patient at a very young age due to symptoms of aggressive periodontitis. Genetic testing can be used to confirm PLS. The defective Cathepsin gene has a point mutation on exon 6. This defect causes dysfunction of the immune response. It is most commonly seen in consanguineous offspring and occurs 1-3 times in one million births. There have been reports that show varying degrees of results from complete edentulism at a young age to complete retention of teeth and very favorable results. Reports of success are consistent with early intervention with good periodontal maintenance to eliminate and reduce pathogens, in particular Acetomyces Actinomycetemcomitans. The pathogenesis of PLS is not clearly defined but has been associated with microbiologic, immunologic and genetic factors. Virulent pathogens have been named, mostly gram-negative bacteria, impairment of neutrophil chemotaxis and phagocytosis, and defective immune-mediated responses have been related to this disease process. Treatment modalities
include conventional periodontal therapy, oral hygiene instructions, scaling and root planning, as well as antibiotic therapy. In addition patients who are being treated for their skin condition are likely to be on a retinoid medication, which has been shown to positively affect the periodontal condition. We will discuss and report the ongoing care of an 18-year-old male patient who first presented to NYUCD in the pediatric clinic at age 4 and the favorable outcome resulting from his continuous care. Although this is only a case report, it suggests that periodontal treatment that is started early in life may significantly change the prognosis.

AN EFFECTIVE RESTORATIVE CASE REPORT OF A PATIENT WITH RAMPANT CARIES SECONDARY TO DENTAL PHOBIA

Michael Ferguson, Ban Manhal Farid

A 23 year old male presents to the pre-doctoral NYUCD clinics seeking comprehensive dental treatment. This patient stated, that his past dental experiences in Ireland left him dental phobic. He now resides in NYC and is a bartender in and therefore is in a “The Public Eye”. Given his line of work, he presented with a “CC” I am concerned about my looks and my smile.” Our pre-doctoral student was faced with 3 major issues to consider during treatment planning. They were: Phobia, Finances, and Funds (limited). The problem list included multiple missing, decayed, and hopeless teeth. The patient is a high caries risk patient, reporting that he didn’t go to the dentist for “a while” due to his fear of the dentist. Gaining the patient’s trust and compliance during the phases of the treatment was achieved through providing sound painless dental care and positive reinforcement. Our treatment plan goals, to restore form, function and esthetics were achieved and the patient has found new confidence. He has been compliant and is on a 4 month recall cycle. Although different treatment plan options were presented and discussed in detail, the patient chose a fixed anterior bridge and restorations in the Maxilla and an RPD and restorations in the mandible. The patient was so happy with the fixed prosthetic work, he referred his brother and his girlfriend to be treated in NYUCD. The Outcome of the Patient is overall very positive as he overcame his dental fear, has never missed his dental appointments, was extremely cooperative and compliant and his oral hygiene shows radical improvement.
ADDRESSING ESTHETIC CONCERNS, ALONG WITH FORM AND FUNCTION FOR A GERIATRIC PATIENT

Michael Ferguson, Timmy Truong

This case presentation is focused specifically on the esthetic fixed prosthodontic reconstruction of an 82 year old female patient. The patient presented to the NYUCD pre-doctoral student clinic 2CD-B with a chief complaint, “I want to have a beautiful smile and to replace missing teeth.” Multiple factors had to be considered during the treatment planning of this patient’s case, such as her periodontal status, past dental work, which included all maxillary teeth connected via a composite splint supported by a paper clip, and a functional occlusion. Evaluating and understanding her occlusion and function was a key factor and resolved by a functional pre-molar occlusion. She presented with multiple missing teeth, generalized moderate periodontitis and failing dental work. This case presentation demonstrates that with continued patient compliance, an improved perio condition, and a well-planned treatment sequence, a successful outcome is possible.

THE IMPORTANCE OF PHASED TREATMENT PLANNING IN THE COMPLEX PROSTHODONTIC PATIENT

Rosa Galiana, Mamta Mehra

Prior to performing complex prosthodontic treatment, an accurate diagnosis and the development of a detailed treatment plan are essential. The diagnosis is always preceded by a thorough collection of data: the patient’s chief complaint and expectations; the medical, dental and social history; evaluation of radiographs and articulated diagnostic casts; and an extra-oral and intra-oral examination including: the periodontal evaluation; a TMJ examination; and evaluations of the occlusion, arch form, skeletal classification, smile analysis, and edentulous ridge classification. An 83 year-old female patient presented to the NYUCD Prosthodontics clinic for dental care. The patient’s chief complaint was, “I want to replace my missing teeth with something fixed.” She is a skeletal class III with a deviation of the head and neck to the left side, a dropped comissure of the lip on the right side, a centric prematurity on teeth 11 and 12 causing a mandibular deviation anteriorly to the right and a collapsed
vertical dimension. A CT scan revealed degenerative changes of the left TMJ with severe flattening of the left condyle, as well as an osteophyte seen anterior to its head. Critical to treating this patient is to determine the correct vertical dimension and mandibular jaw position. The patient has the ability to be placed into a reproducible centric relation position, however, what needs to be determined is: will the patient be able to tolerate the corrected position? And, will this position change if the muscles adapt? In order to answer these questions the patient will be placed into an estimated treatment position dictated by anatomic and esthetic landmarks with adjustable, reversible, removable prostheses to evaluate her physiologic tolerance to a restored position.

BEHIND THE SMILE OF A GERIATRIC PATIENT

Michele M. Harutunian, Angela Dibartolo, Denise Estafan, Amir Daoud, David Hershkowitz

Historically, dental schools have treated the geriatric population as patients with dentures. This solves the basic functions for patients without teeth, esthetics are not their primary function. Many patients have utilized dental technicians to give them a “set of teeth” and they were fine with it. The expectation of today’s geriatric patient is very different. Many elderly patients could benefit from a “smile makeover”. People in their seventies and eighties participate in a variety of social activities that involve interaction with their families and peers. The appearance of their teeth can have a dramatic effect on their outlook and their quality of life in general. A comprehensive examination including the patient’s social activities gives the student the opportunity to understand the patient’s needs. Students learn to probe into the social needs of the patient, to find out if there is a depression component, a confidence aspect that can be addressed and improved upon. A more confident smile is certainly a reflection of how the patient perceives himself. Students have the satisfaction of helping the patients with their dental needs at the same time with their inner emotional needs. PURPOSE: Our society has grown into a place where people are living longer, are becoming more health conscious, and have expectations of maintaining an overall positive “younger look”. Incorporating the elderly for esthetic dentistry in our schools is imperative to raising self-esteem, aiding in nutrition and benefitting the overall health of the elderly population. CONCLUSION: Lives can be forever improved with a smile enhancement. Enhancing the smile and restoring the confidence of our patients with an understanding of planning, occlusion and skillful treatment, a predictable result and a happy patient is a validating experience for the student.
A CLINICAL CASE REPORT: TELESCOPE CROWN PARTIAL DENTURE

Hsin Yu Kuo, Farhad Vahidi

Telescopic crowns may allow for excellent support of removable partial dentures. The advantages of using the telescopic crowns for abutments of removable partial dentures are: 1) Minimal denture bases extension. 2) Improve patient adaption and easier maintenance and oral hygiene. The disadvantages are: 1) The crowns may be bulkier. 2) The cost of fabrication of the prosthesis is higher and may need greater laboratory expertise. Technique: 1) Metal copings - cemented on the abutment teeth. 2) Telescope crowns - constructed as part of the removable partial denture which fit over the copings. This clinical case report illustrates and usage of telescope crown supported removable partial denture in the mandible. Patients with loss of the supporting tissue and poor teeth alignment are excellent candidates for this technique. Patients with few remaining abutment teeth, especially in the mandible find these prosthesis to be very comfortable. Hygiene is improved around the abutment teeth.

A NOVEL FULL MOUTH IMPLANT-SUPPORTED REHABILITATION: THE ZIRKONZAHN TECHNIQUE

Mamta Mehra, Farhad Vahidi

A 41 year old male presented to NYUCD AEPP clinic with a chief complaint, "I need my implants restored. I do not want to wear dentures anymore.” The patient had eight implants placed in each arch in 2008 and was currently wearing maxillary and mandibular complete dentures. The treatment options were discussed with the patient and it was decided to restore the implants using Zirkonzahn - an all zirconia CAD/CAM system that uses a five-axis copy milling process. Maxillary and mandibular final impressions were made and master cast accuracy was confirmed using verification jigs. Maxillary and mandibular occlusal rims were fabricated and inter-occlusal records were transferred to a semi-adjustable articulator. An artificial tooth arrangement was tried-in and assessed. The finalized tooth arrangement was then sent to the Zirkonzahn facility. The treatment sequence and progression will be presented. The purpose of this presentation is to discuss a novel technique that can be used to restore a complex full-mouth implant treatment using fixed implant-supported zirconia restorations.
A 57 year old African American female patient presented to the pre-doctoral comprehensive care department at NYUCD with a chief complaint of, “My old caps need changing and I need to get a better smile.” Her medical history was consistent with MCS-1A. Clinical Examination pertinent to the chief complaint revealed a failing gold/acrylic facing fixed partial denture teeth# 11-14 with facial gingival recession; individual porcelain fused to metal crowns teeth# 7-10 with bulky emergence profiles contributing to gingival inflammation; teeth# 4,5 with dark grey shadowing secondary to extensive deteriorating amalgam restorations. Significant asymmetrical gingival zenith allocations were evident spanning teeth# 4-14. This case report will discuss treatment concepts/techniques for this patient scenario. Following completion of comprehensive diagnostic NYUCD protocols, and extensive discussions with the patient utilizing aesthetic diagnostic wax ups of teeth and gingival tissues, a multi-pronged rehabilitation treatment plan was developed and accepted by the patient. This included individual porcelain fused to metal crowns teeth#4,5,6 and captek crowns teeth# 7-10; fixed partial denture teeth# 11-14. In conjunction with treatment plan development, a clinical question was researched: In adult diabetic patients receiving a fixed prosthesis, how would their treatment success rate compare to healthy adult patients? A variety of dental materials/techniques were utilized including multiple progressive provisionalizations along with gingival zenith and emergence profile changes in order to maximize the aesthetic result. Interestingly, at near completion, the patient elected an asymmetrical profile in teeth#8-9 area instead of the symmetrical provisionalization. The patient has been recalled and continues to be extremely satisfied with her case. Her functional and periodontal status remains stable.
TO TREAT OR NOT TO TREAT?

Manishkumar Patel, Bijan Moghadam

A 56 year old male presented to NYUCD with chief complaint of missing teeth with no significant medical history. He was missing some posterior teeth with significant Abfraction on all remaining teeth. While treatment planning one faculty advised not to treat the lesions while other advised to interfere. A clinical judgment and decision was made after discussing possible pros and cons. What are possible factors that should be considered in process of treating Abfraction? Abfraction is results from occlusal loading surfaces causing tooth flexure and mechanical microfractures and tooth substance loss in cervical area. The condition is controversial, and current evidence suggests that it exists only as a hypothetical component of cervical wear. Past theories have suggested that the condition arises from eccentric occlusal loading, which creates flexure and shearing stresses, and disruption of the bond between enamel and dentin. The defects have been described as a sharp, wedge-shaped loss of enamel and dentin along the cervical region of the facial aspect of a tooth. Caries lesions and noncarious lesions are more common on facial surfaces of teeth than on lingual surfaces because of differences in the chemistry and character of saliva in lingual and facial areas, which bring about differences in remineralization of tooth structure and the dilution and buffering of acids. Concern or question before treating Abfraction: Would you wait and observe it? Would you not abrade the lesion and restore it without any modification? Does it affect its long-term prognosis? Would you abrade the lesion to restore it? When do you interfere? What would be your criteria to interfere: aesthetic, sensitivity, depth? What are possibilities if we don’t interfere: progression of tooth structure loss, tooth sensitivity, the need for endodontic therapy, tooth loss, the occurrence of additional lesions?

TEACHING STUDENTS ESTHETIC SHADE SELECTION TO ACHIEVE A NATURAL, HARMONIOUS RESULT

Glenn K. Rochlen

Developing a natural smile goes well beyond selecting appropriate tooth morphology but must also include a proper and harmonious shade selection. Left to a patient’s decision, the whitest
shade is often selected. One of the greatest challenges facing practitioners in esthetic rehabilitation is selecting shades that result in an enhanced yet natural appearance. Dentists frequently design rehabilitation not with the whitest shade, but with a single shade. The end result is an unappealing, monochromatic smile. Acknowledging that shade selection is one of the most subjective and challenging aspects of esthetic rehabilitation, students can still be taught to analyze the unaltered dentition and enhance a smile using the same principles as seen in nature. The ultimate goal is that patients achieve the desired esthetic enhancement that conforms to natural parameters. Students are taught to examine the unaltered smile and define the shades that naturally occur. The shades of the four anterior teeth are defined and compared with those of the canines and the remaining posterior dentition. The posterior dentition is typically more intense, typically yellow (or yellow/brown) than the anterior teeth, which tend to be whiter, and more translucent. However, when we look at a smile, it appears harmonious. This is because our brains blend the natural color variations of teeth. We can use this same idea when changing a patient’s smile. By manipulating the hue, chroma or value we are able to enhance a patient’s smile at the same time achieving a natural result. Students are taught how to select a more esthetic shade using the principles found in nature, and this results in an esthetically enhanced, yet natural appearance.

**C13 Utilization of a PDA/Web-Based Clinical Decision Support System for Providing Smoking Cessation Services**
Andrew Schenkel, Theresa Montini, David Albert, Elise Eisenberg, Chirag Sadana, Donna Shelley

This poster presentation will demonstrate how NYUCD has engaged students and clinical faculty in delivering evidence-based tobacco use treatment through the use of a Personal Digital Assistant (PDA)/Web-based clinical decision support system (CDSS). This presentation will also illustrate the design, the development and the pilot test of the PDA/Web-based CDSS to assess usability and acceptability of the system and to assess the preliminary effect on adherence to tobacco use treatment guidelines in our pre-doctoral comprehensive patient care facility through a funded pilot
study run in late 2010. Despite the existence of effective treatments to support smoking cessation, cigarette smoking remains the leading cause of morbidity and mortality in the United States. Dental practices provide an important but relatively untapped venue for delivering evidence-based tobacco use treatment. Dental professionals have regular access to a broad proportion of the population and should have a credible and central role in providing smoking cessation services in view of the oral hazards of tobacco use and the links between oral pathology and systemic health. There is growing interest in the role that the dental team can play in helping their patients quit smoking, but adoption of tobacco use treatment guidelines in dental practices remains low. It was postulated that a PDA/ Web-based CDSS had the potential to increase screening for tobacco use and provide decision support for evidence-based patient management. We developed CDSS software, deployed the PDA/ Web-based tool in one of our NYUCD’s general practice clinics, interviewed the student dentists before and after implementation, and reviewed patients’ charts to determine changes in tobacco use screening and treatment. After CDSS implementation, patients were significantly more likely to be screened for tobacco use (<.001), and tobacco users were more likely to be advised (<.001), referred to the state’s Quit Line (<.001), and prescribed Nicotine Replacement Therapy (NRT) (.035).

EFFECTS OF SALVADORÁ PERSCICA “MISWAK”:
A TOOTHBRUSH PLANT ON ORAL CAVITY

Jainy Vakharia, Maureen McAndrew

Miswak is a type of chewing stick which is obtained from roots and branches of Salvadora Persica plant. Uses of Miswak as a tool for oral hygiene have been reported since fourteenth century. Today Miswak is being used in various countries across South America, Africa, Asia and Middle East, and often referred using different names such as Siwak, Arak, Datan and Salt bush. Our research investigates the chemical and mechanical properties of Miswak that affects oral cavity. The research provides details of antibacterial, anticariogenic, antiplaque and antimycotic qualities of Miswak. We review numerous articles published in literature (searched using Ovid, PubMed and Google Scholar) that explore effects of Miswak on oral cavity and compare Miswak with modern dental aids.
2012
CLINICAL & EDUCATIONAL SCHOLARSHIP SHOWCASE
First Prize
SCHOLARSHIP
First Prize
Clinical Scholarship
D1 PRACTICAL SCORES—WHICH TIME OF DAY GIVES BETTER RESULTS?

Garrett Dacker, David Juhn, Mostafa Madani, Maureen McAndrew

The first D1 practical is a class II classic amalgam preparation on a mandibular first molar. This study aims to determine if there is any discrepancy in student performance related to the hour the examination is taken. The examination is given for section A and section B at 10 AM and 2 PM. The sections switch examination times for the second attempt. Approximately 230 students participated. Approximately 460 data points will be analyzed and compared using mean and standard deviation. We will use both attempts to control for intrinsic differences between section A and B performance. We hypothesize that the differences, if any, may be due to student sharing information, extra practice time, being more rested, and grader bias.

TECHNOLOGY ENHANCED INTERPROFESSIONAL EDUCATION FOR DENTAL AND PEDIATRIC NURSE PRACTITIONER STUDENTS

Jill B. Fernandez, Donna Hallas

The purposes of this interprofessional educational module was twofold: 1) to provide formal opportunities for second year dental students and pediatric nurse practitioner (PNP) students to collaboratively examine the evidence-based; 2) to explore culturally sensitive approaches to oral-systemic health care for culturally diverse, underserved children over a six week period. An overall goal for these educational opportunities was to enable the students to collaboratively plan interventions that reduce the incidence of early childhood caries (ECC). This technology enhanced interprofessional education module was added to the clinical portion of the Initial Clinical Experience (ICE) course for second year dental students. ICE introduces the students to pediatric dentistry, and to caries prevention for children in diverse community settings. We developed and implemented a module that used Podcasts to initially prepare all students for ICE and used advanced technology at the point of care to provide
a forum for students to explore their interprofessional experiences and skill development during the 6-week rotation. Students worked collaboratively to examine evidence-based behavioral approaches and cultural influences that impact oral-systemic health care in young children. The competency-based outcomes for this interprofessional education module included: 1) Collaboratively conduct a systematic assessment of challenging dental and medical pediatric cases that were encountered in the Head Start programs using advanced iPad technology; 2) Planned cultural sensitive interprofessional evidence-based interventions that promoted parental behavioral changes to improve the oral health status of these high-risk populations; 3) Provided age appropriate behavioral interventions to gain cooperation of young children during the oral health examination; 4) Developed skills in oral health assessment and application of fluoride varnish.

SELF-ASSESSMENT: A CRITICAL COMPONENT TO ENHANCE SKILLS IN PRECLINICAL ENDODONTICS AT NEW YORK UNIVERSITY COLLEGE OF DENTISTRY

Laurie Fleisher

This poster demonstrates the self-assessment strategy used to engage predoctoral students in the development of both critical thinking and clinical skills in endodontics. Self-evaluation of performance is recognized as an important strategy to enhance clinical judgment, diagnostic skill and problem solving. The ability to cultivate critical thinking skills provides a strong foundation for the development of professionals who exhibit the highest level of performance and the greatest understanding of underlying rationale for treatment. When students are engaged in the self-assessment process they continually review and apply key concepts of clinical criteria. The central focus of this educational strategy is a comprehensive check list that systematically incorporates all critical criteria for the completion of each procedural step in endodontic therapy. Preclinical students work on plastic models of both anterior and posterior teeth in the preclinical endodontic lab. The self-assessment process is divided into components beginning with the proper setup of endodontic instruments and preparedness for the procedure. The remaining components specifically innumerate each critical step of access cavity preparation, cleaning and shaping of the root canal system, obturation and the post-endodontic restorative treatment plan. At the completion of each critical step, each student
assesses and documents his/her preclinical performance. The documented assessment along with the student’s preclinical performance is reviewed with the faculty member overseeing his/her work. This serves as an invaluable tool in providing immediate feedback regarding each student’s ability to self-assess his/her skill and competency. The development of clinical expertise can be optimized while repetition of clinical error can be deterred if self-correction from self-assessment is incorporated into the educational model at the earliest stage of clinical training. This educational approach provides reinforcement of critical concepts, conformity to core technique and curriculum, and the development of critical thinking and its appropriate execution.

**VISUALIZING TREATMENT OUTCOMES: TECHNOLOGY HELPING STUDENTS IN TREATMENT PRESENTATIONS**

Michele M. Harutunian, Irene Brandes, Bruce Brandolin, Amir Daoud

The student needs to immerse his or her patients in clinical and educational visualization. When communicating dental information to patients, students have to ask the question: “What is the most effective way to present the findings and the alternative treatments.” This can be done with a number of diagnostic treatment planning tools at our disposal by using digital radiography, intraoral camera, digital photography, smile simulation and interactive dental programs. The visual modality of communicating dental information to patients raises the case acceptance. The modality used by the student educates him or her in the presentation process to better serve the patient. The future dentist has an obligation to provide his or her patients with the most innovative technology available.

**PURPOSE:** To illustrate the importance of understanding the power of “visual learning” in dental communication. To illustrate the benefit between student and faculty outside of the university setting in an inter-disciplinary manner.

**FINDINGS:** The “power of visual learning” in dental communication is demonstrated by a group of students following several visits to a dental office equipped with such technology. They were able to see the difference it makes when presenting with and without visual aids. The rewards were immeasurable for the students’ educational value.
IMPACT OF AN INTERDISCIPLINARY CONCERT SERIES ON STRESS AND WORK-LIFE BALANCE IN A DENTAL COLLEGE

Charles Larsen

Impact of an interdisciplinary concert series on stress and work-life balance in a Dental College

Abstract: Background: A piano concert series and jazz reception program was organized at the College of Dentistry at New York University in 2007. This concert series is supported in part by a Creative Collaboration Support Grant from the New York University Coordinating Council for Music. The piano used in the Dental Concert series was donated by the late Frank Sinatra. Music and extracurricular activities can help reduce stress. Objective: The intent of the study is to measure attitudes about the concert series. Methods: An anonymous survey was given to faculty, staff, and students during 2010-11. The response rate was 94% (191/204). Results: Overwhelmingly the respondents recommend that music concerts in the Dental College be continued. Support is apparent in the overall recommendation and in questions dealing with stress, productivity, music, the auditorium, and the community. Differences between groups defined by status (student, faculty, other, or unknown) and by previous music study (yes, no, or unknown) were small. Conclusions: Events such as a concert series organized at the College of Dentistry apparently can have positive influence on work-life balance and can be recommended generally.

CRITICAL THINKING IN DENTAL EDUCATION: WHAT IS IT? WHERE DID IT COME FROM? WHERE IS IT GOING?

Mitchell Lipp, Jeffrey Goetz, Rory Chong

Purpose: To understand the meaning of critical thinking as defined by the dental literature. Objectives: 1) To review definitions of critical thinking in recent dental education literature. 2) To trace and describe the origins of the term critical thinking in dental education. 3) To describe and discuss relationships between definitions of critical thinking and its educational practice. Introduction: A recent theme in dental education has been teaching dental students to develop and apply critical
thinking skills. Critical thinking is the first competency domain in two recent ADEA documents: “ADEA Competencies for the New General Dentist” (2008) and “ADEA Foundation Knowledge and Skills for the New General Dentist” (2011). Likewise, the Commission on Dental Accreditation requires demonstration of competence in this area for the graduating dentist of 2013. Institutions in compliance must demonstrate “explicit discussion of the meaning, importance, and application of critical thinking.” Most definitions of critical thinking in the dental literature are implicitly defined by the author, taking the form of the author’s personal interpretations and assumptions of the meaning. These implicit definitions vary, and may obfuscate analysis and evaluation of best practices in teaching, application, and assessment. The ADEA Commission on Change and Innovation in Dental Education has created a “Critical Thinking Skills Toolbox” that summarizes explicit definitions of critical thinking. Methods: The purpose of this study was to clarify the meaning of critical thinking and how it has evolved in the recent dental literature. Descriptive words from ADEA’s Critical Thinking Skills Toolbox were coded and grouped according to similar relationships, independently by two researchers. Discrepancies between group assignments were noted and discussed with a third collaborator to establish consensus. A retrospective qualitative analysis of the definition was then conducted by locating the appearance of these codes in dental literature, and commonalities and disparities were examined over time.

ANATOMY OF A COURSE EVALUATION: WORKING TOWARD A “BEST PRACTICE” MODEL

Mitchell Lipp, Paul Lazari

At NYU College of Dentistry, the department of Orthodontics administers course evaluations at the end of the D2 Invisalign lab course, a pre-doctoral competency based course featuring the Invisalign system assessing the students’ skills in diagnosis and treatment planning based on clinical simulation cases. Dramatic changes based on Adult Learning Theory were introduced in the course and there was a shift away from the traditional lecture format. The new structure of the course used a hybrid approach with asynchronous learning modules, and classroom time devoted to experiential case based learning, working in small groups with peers, guided by instructor/coaches. The first part of the course evaluation consisted of 8 items reflecting back on key previously identified course goals and objectives accompanied by a traditional Likert scale ranging from strongly agree to strongly disagree.
The second part of the course evaluation consisted of 2 redundant items with a rubric modified Likert scale. A best practice protocol was devised following principles of course evaluation administration which assured respondent anonymity and a high response rate. Respondents did not know their grade in the course prior to completing the evaluation. Potential confounding variables such as students’ age and program (Advanced placement vs. four year) were recognized and identified. This D2 course was repeated three times to different instructional groups (A, B, C). Each instructional group was divided into 10 subgroups that were paired to specific instructor(s). Group and subgroup data was also tracked in the study. Conclusion: The evaluations were administered to the D2 Invisalign course during the 2011-2012 academic year and 339 completed the evaluations. Preliminary results indicated that students responded favorably to the new format of the course and the items with the rubric modified Likert scale (compared to traditional) showed a consistent shift in frequency and distribution of responses, within and between instructional groups. These results indicate an effect that supports the hypothesis that the rubric modified Likert scale they may direct respondents to report their perceptions with greater accuracy.

ARE TREATMENT PLANNING SKILLS STANDARDIZED AMONG DENTAL STUDENTS?

Martine Mandracchia, Thiki Bertrand, Alexandra Pantzis

Objective: A major component of dental school education is the ability to treatment plan a new patient. The goals for every dental school is to make sure dental students are able to recognized basic dental needs and or problems and are able to render the correct treatment for the given scenario. The goal of this project is to determine if dental students are standardized in their ability to treatment plan. Another goal is determine if there is a difference between D3 dental student responses versus D4 dental students. Methods: A standardized survey comprising the core principles from cariology, prosthodontics, orthodontics, endodontics, periodontics and oral facial pain and medicine was given to D3 and D4 dental students at NYU College of Dentistry. Questions and answers were reviewed by program directors from each department. Once surveys were standardized they were voluntarily given to D3 and D4 NYU dental students. Results: Statistical analysis will be conducted on the results of the treatment planning survey comparing and contrasting answers among D3 dental students, D4 dental
students and between D3 and D4 dental students. Conclusion: The ability to standardized treatment planning skills in a dental school program is one of the most important components towards a dental school education. The ability to recognize and treat common dental problems will best prepare a dental student for entering the profession and help students succeed in treating patients on their own once graduated from dental school.

WEIGHING THE EVIDENCE: INCORPORATING EVIDENCE-BASED DECISION MAKING INTO WRITTEN CASE STUDY CAPSTONE PROJECTS

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One of the challenges of dental education lies in providing students with opportunities to reflect on and synthesize their learning. Written case reports can serve this purpose, in addition to providing faculty with a means to assess students’ knowledge. The inclusion of evidence-based decision making in written case reports further challenges students to search for, appraise and incorporate the best evidence for their clinical decisions. At New York University College of Dentistry, third year students are required to complete an evidence-based risk assessment case in which they identify a patient’s medical risk, compose a clinical question related to this risk, and then search, appraise and synthesize the literature in an attempt to address the clinical question. Fourth year dental students are required to complete an evidence-based comprehensive patient case which builds on the third year risk assessment case by including initial and final photographs and a description of the care that was provided for a patient. Both of these cases are presented in a written format as a capstone project for the year. This poster will provide the rationale for requiring dental students to write capstone projects. An overview of evidence-based decision-making will be presented. The relevancy of evidence-based decision-making to the two capstone projects will be discussed. The criteria for both written capstone projects will be described. The components of each project will be detailed and examples will be given. The grading metric for both projects will be delineated.
INCLUSION OF A SOCIAL WORKER IN THE HEALTH CARE TEAM: AN INTEGRATED CASE PRESENTATION OF TREATMENT OF A PREGNANT TEEN

Andrew Schenkel, Alexis Cohen, Caroline Gordy, Alyson Leffel, Jamie Thompson, Liney Espinosa

This integrated case presentation aimed at shedding light on the magnitude of influence that social determinants have on patients’ needs beyond their oral health, their healthcare decisions and the subsequent consequences of those decisions. Dental education and dental treatment planning often do not put sufficient emphasis on the social factors influencing health. The multitude of factors affecting an individual’s life outside of those affecting their oral health, very often must be dealt with in order to provide optimum care. Looking closely at one student’s patient in the comprehensive patient care facility at NYUCD, it is possible to gain insights about how to best manage a challenging situation through a multidisciplinary approach including the services provided by a social worker. The 17 year old pregnant patient was presented by Ms. Cohen and she proposed the following questions: 1) How should dental practitioners be more responsive to patients’ needs beyond their dental disease in their patient management and treatment planning? 2) Are there healthcare delivery models in dentistry that include integration of a social worker as part of the healthcare team? Literature on social factors effecting oral health during pregnancy was acquired, assessed and presented by Ms. Gordy. The effects of pregnancy on oral health were researched and presented by Ms. Espinosa. In 1993, Eastman Dental Center partnered with the Social Work Division of the University of Rochester Medical Center to develop a social work model of care addressing the bio-psychosocial needs of the dental population. This model and their 15 year were presented by Ms. Thompson as an example of the successful integration of social work into the dental care setting. She also outlined what social services were available to us and what signs and “red flags” our DDS students should look out for when interviewing and treating their patients.
Evidence based decision making (EBDM) is gaining acceptance in dentistry and in dental education. The integration of EBDM throughout the curriculum of New York University College of Dentistry (NYUCD) will be described in this poster which will be presented at ADEA’s annual meeting in March. Engaging students in EBDM requires the creation of champions among the faculty. McMaster University experts were brought in to conduct courses, resulting in over 300 trained faculty members. Selected faculty members traveled to McMaster, Oxford and Forsyth centers for additional training. These individuals now conduct in-service lunch and learn training sessions. Periodically, prominent experts are enlisted to provide additional training. During NYUCD freshman orientation, students are introduced to the principles and techniques used in EBDM. They formulate questions, search for evidence and report on their findings. After orientation, each D1 student is grouped with a D2, D3 and D4 student to utilize EBDM in weekly integrated case presentation seminars. In these seminars, one team of students presents a case to the remainder of the small group, investigating the most current and convincing evidence to address a clinical question. D1s present relevant physiology, D2s present relevant pathology, D3s present the evidence, and D4s present the clinical case. EBDM is also featured in written case reports required of D3s and D4s. The written reports focus on searching and appraising the literature to determine the best course of treatment to assess and manage a patient’s risk. A D4 Comprehensive Care Certification course reviews the principles of EBDM utilizing small group discussions for assignments related to interactive clinical scenarios. The skills required are practiced and evaluated using the Educational Rx. This course draws upon knowledge across all clinical disciplines and upon an understanding of evidence-based and biomedical/dental-based principles to demonstrate comprehensive patient assessment, diagnosis, and interdisciplinary treatment planning.
STATISTICAL ANALYSIS OF RELATIONSHIP BETWEEN PRE-DENTAL BACKGROUND VARIABLES AND GDS COURSE PERFORMANCE

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Purpose: The research was designed to statistically analyze the relationship of pre-dental variables - dental assisting experience, type and duration of dental assisting experience, a dentist immediate family member and PAT (Perceptual Ability Test) score with DDS first year General Dentistry Simulation (GDS) course grades. GDS is divided into two separate courses: GDS-1 (Clinical Foundation, Dental Anatomy and Biomaterials) and GDS-2 (Single Tooth Restorations and Biomaterials). Methods: A six item close ended questionnaire was designed in a survey based format. IRB approval for the study was received prior to survey distribution to DDS first year students of NYU College of Dentistry. 79 students gave informed consent and responded to the survey (N= 79). The data was collected anonymously and was analyzed with statistical analysis software (SPSS v.20) for obtaining descriptive statistics, graphs, bivariate correlations and non-parametric tests. Results: 1. Bivariate analysis revealed statistically significant correlation between the two GDS course grades (p<.05). This indicates that students with A grades in one GDS course grade are more likely to get A grades in other GDS course. 2. Students with 1 to 15 weeks of assisting experience are more likely to score A grades than students with no assisting experience or assisting experience more than 15 weeks in case of both the GDS courses. (However this result was not statistically significant). Chi-square tests indicated no significant association of pre-dental variables -dental assisting experience, type of dental assisting experience and a dentist immediate family member with the two GDS course grades. 3. An independent–sample T-test revealed no significant correlation between PAT score and GDS course grades. For GDS-1, the magnitude of differences in means was moderate (eta squared = .05).