Clinical and Educational Scholarship Showcase 2013
The Academy

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

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Commons

THURSDAY, APRIL 25, 2013

Poster Viewing
8:00 AM–5:00 PM
Commons

FRIDAY, APRIL 26, 2013

Poster Viewing
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Lunch Time Lecture
“Portfolio Assessment of Student Competency: A Non-Traditional Assessment Measure”
Dr. Cindy Amyot
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Keynote Lecture
“Engaging Today’s Learners Through Technology”
Dr. Cindy Amyot
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Showcase Awards Ceremony & Reception
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Refreshments Served
Dr. Cynthia Amyot serves as Professor and Associate Dean of Instructional Technology and Faculty Development at the University of Missouri-Kansas City (UMKC) School of Dentistry. Dr. Amyot has been a full-time faculty member at UMKC since 1993, serving two years as Interim Vice Provost of Online Education, three years as Director of Graduate and Degree Completion Studies, and five years as Director of the Division of Dental Hygiene. Dr. Amyot has received numerous distinguished teaching awards from the School of Dentistry and is a recipient of the university-wide Elmer Pierson Outstanding Teaching Award. In 2011 she was the recipient of the Missouri Distance Education Leadership Award from the Missouri Distance Learning Association. Dr. Amyot has served as co-chair of the UMKC School of Dentistry promotion and tenure committee and chair of the faculty development committee. Her research interests include: portfolio assessment of student competency, community-based service learning, and access to care and distance and online education. Dr. Amyot was the recipient of the 2007 ADEA/William J. Gies Foundation Education Fellowship and was awarded the Pfizer/ADHA Award for Excellence in Dental Hygiene in 2004.
A CASE REPORT AS A VALUABLE TEACHING TOOL: THE DENTAL MANAGEMENT OF A LIVER TRANSPLANT PATIENT

David Levenson, Analia Veitz-Keenan

A case report is a descriptive study of a single individual. It represents the oldest and most familiar form of medical communication. Although less scientifically rigorous than controlled clinical data, evidence based it is not, a case report has the capability of being an educational and “hands on” teaching tool. Practical aspects of patient care may also be gleaned from it.

A careful search of the literature has found only a few articles discussing, or providing guidelines for, the dental management of a liver transplant patient. This case report is valuable, considering the dearth of publications on this subject. It has educational value to the dentist regarding relatively new medical considerations such as organ transplant and immunosuppression.

The case presentation has been used as an aid in teaching Introduction To Patient Care. The students are able to see how each of our medical history forms is to be filled out. They are able to follow the medical consult form that was sent to the treating physician and the physician’s response. Finally, it provides important information on direct patient care. The physician’s response was a clear and concise, dental management plan.

The case itself involves a 26-year-old female who presented to the admissions clinic at NYUCD for a “dental checkup.” Her medical history revealed that she had liver failure at age 19, the result of autoimmune hepatitis, and that she had received a liver transplant at age 23. She said that she was currently taking immunosuppressant drugs. A medical consult was sent requesting pertinent information regarding her dental management. The form was completed and returned along with the most recent lab tests and a clear and concise 6 point dental management plan.

This case report has proven to be not only informative, but also a valuable teaching tool.
BILATERAL REMOVAL PARTIAL DENTURE UTILIZING SEMI-PRECISION ATTACHMENT SYSTEM: A CASE REPORT

Klenise Paranhos, Parisa Kheirieh, Kambiz M. Ghalili

Introduction: Removal Partial Dentures (RPD) fill the space created by missing teeth providing support for lips and cheek, restore function, speech and smile in partially edentulous patients. Semi-precision attachment are more esthetic than metal clasps; simple, predictable and cost effective alternative. The Bredent VKS-SG Attachment System (Bredent, USA, Miami, FL) was used to maximize stability and retention providing balance support to the abutments.

Case Report: A 70-year-old female patient presented with existing crown and 3 unit bridge on bilateral edentulous mandible. Her improper bridge supported by a hopeless tooth were removed and the tooth extracted. Abutment teeth were prepared and impression using polyether impression material for a porcelain-fused-to-metal (PFM) abutment crown with VKS-SG attachment fabrication on the left side. Semi-precision attachments are a simple, predictable, cost effective alternative for the patients. The advantages of the Bredent Attachment System include increased stability, retention function and patient satisfaction. Because the system is relatively ridge, there is minimal movement in the prosthesis and there is no need to extend the appliance across the arch.

Conclusion: Although the semi-precision system require a higher cost and additional chair time, post-delivery visits involve little adjustments, and there are fewer maintenance problems. The use of Bredent System meets the criteria for success, creating enough retention that the RPD is not easily dislodged. It’s relatively easy to remove and replaced for patients. This leads to high patient satisfaction and better quality of life.

A COMBINED ORTHODONTIC AND RESTORATIVE APPROACH TO THE ESTHETIC TREATMENT OF A MAXILLARY PEG LATERAL INCISOR IN AN ADOLESCENT FEMALE PATIENT

Eugene Bass

The presence of a peg lateral incisor is an example of an autosomal dominant genetic condition that is often associated with several other dental abnormalities, including tooth agenisis. It can occur either unilaterally or bilaterally. Individuals with peg lateral incisors often present with an associated midline diastema, as well as other anterior diastemas. The esthetic restoration of a peg lateral incisor can become a transformative event for an adolescent female patient. This article describes a combined orthodontic and restorative approach to the management of this condition, using a direct composite veneer without tooth reduction. This most conservative and minimally invasive treatment is especially appropriate in the adolescent patient. Final esthetic results are optimized by this combined interdisciplinary approach. By planning for the resultant space mesial and distal to the peg lateral incisor, composite resin can be directly veneered over the tooth to provide excellent esthetics. Other treatment options can be considered in adulthood, if necessary.
CONSERVATIVE APPROACH FOR IMPROVED ESTHETIC RESULT IN THE ANTERIOR MAXILLA: CASE REPORT

Hossam Harisha, Kenneth Kurtz

This clinical report describes an interdisciplinary (Orthodontics, Periodontics, and Prosthodontics) approach for the coordinated treatment of a patient. A 23-year-old female presented to PG Prosthodontics clinic at NYUCD in February 2012, dissatisfied with the appearance of her smile. A thorough data analysis was done to make the correct diagnosis and to select the appropriate treatment plan to meet the patients’ aesthetic expectations. She was diagnosed with peg-shaped maxillary lateral incisors, diastema, short clinical crowns, excessive gingival display. The patient’s particular aesthetic expectations for the anterior maxilla were successfully met through phased treatment including orthodontic tooth movement to close the diastema, periodontal surgery for crown lengthening, porcelain laminate veneers, and direct composite restorations. Such harmonized interdisciplinary evaluation and treatment planning are necessary for enhanced aesthetic results.

MUCOGINGIVAL VOLUMETRIC CHANGES FOLLOWING ROOT COVERAGE WITH ACELLULAR DERMAL MATRIX: A CASE REPORT

Emanuele Clozza, Takanori Suzuki, Wayne Kye, Robert A. Horowitz, Steven P. Engebretson

Introduction: Monitoring mucogingival changes following treatment is of great interest for clinicians and researchers.

Case Presentation: A 30-year-old non-smoking male, who exhibited multiple adjacent teeth with Miller Class I gingival recession in the esthetic zone, underwent a root coverage procedure with an acellular dermal matrix graft. Dental stone casts of the upper arch were fabricated from impressions taken at baseline and 3-months post surgery. Subsequently, the entire surfaces of the models were digitally captured with a 3D laser scanner. Virtual measurements were performed on superimposed casts to assess mucogingival changes during the 3-month period. Complete resolution of gingival recessions was observed in all the treated sites, along with an overall increase thickness of mucosal tissues.

Conclusion: Within the limitation of this study, the proposed method may be promising to evaluate the outcome of root coverage and identify biotype conversion.

THE MODIFIED SUBPAPILLARY CONTINUOUS SLING SUTURING METHOD

Takanori Suzuki, Emanuele Clozza, Steven P. Engebretson

Aim: This case report introduces a new suturing method, the modified subpapillary continuous sling suture, for use with acellular dermal matrix grafts in tunnel procedures to treat gingival recession. This method combines the graft suture and the sutures used to advance the pouch margins over the graft into a single continuous sling suture anchored to orthodontic
brackets. It is indicated particularly for sites where the anatomic factors may limit the complete root coverage.

Case Presentation: A 25-year-old non-smoking male, who exhibited multiple adjacent teeth with Miller Class I gingival recession of the upper arch, underwent root coverage procedure with acellular dermal matrix graft. A split-mouth design was applied for the suturing method: the right side was sutured according to the subpapillary continuous sling technique described by Allen EP (2010), whereas the left side was sutured with a modified approach, which consisted of a continuous suspension suture passed from grafted flap to orthodontic brackets attached to the teeth surfaces. Dental stone casts of the upper arch were fabricated from impressions taken at baseline and 3-months after surgery. Subsequently, the entire surfaces of the models were digitally captured with a 3D laser scanner. Virtual measurements were performed on superimposed casts to assess mucogingival changes during the 3-month period. Complete resolution of gingival recessions was observed in all the sites, along with an overall increase thickness of mucosal tissues. The advantages of this method include: reduced suturing time compared to the traditional method and higher control of coronal advancement of the pouch.

Conclusion: This novel suturing technique has revealed to be a feasible alternative to current suturing methods.

MANAGEMENT OF SOFT TISSUE DEFICIENCY WITH ALL-CERAMIC RESTORATIONS

Albina V. Malanchuk, Robert W. Berg

Veneers are considered minimally invasive and an effective treatment option for patients. There are many factors to be considered when selecting materials to replace hard and soft tissues. The treatment of patients with loss of alveolar bone and surrounding soft tissue is challenging in the anterior teeth. This report shows a clinical case using Emax veneers and a Zirconia FPD with gingiva-colored ceramics to compensate for lost of gingival soft tissue.

A TECHNIQUE TO REPAIR ENDODONTICALLY COMPROMISED ROOT BEFORE POST AND CORE FABRICATION

David Juhn, Ralph P. Cunningham, Denise Foran, A. Alper Comut

Excessive tooth structure removal in the attempt to access the pulp chamber and/or root canals in hyper calcified teeth is one of the complications of endodontic treatment. This clinical scenario usually results in a thin wall of the root and jeopardizes the long-term prognosis of the tooth. When such a complication occurs, the tooth could be extracted and be replaced by an implant, a pontic of a fixed dental prosthesis or a removable partial denture. If the tooth would be saved, a corrective procedure such as orthodontic extrusion or crown lengthening could be performed to bring the defect to a supracrestal bone level. The tooth would then be restored with a post and core and a crown. In some instances, the patient may deny these corrective procedures and choose to save the tooth with its current condition. Fabrication of a post and core with thin walled root may increase the possibility of root fracture. Kivanc et al. studied the fracture resistance of thin-walled roots (1.0 mm,
1.5 mm, 2.0 mm) restored with different post systems and showed that shear strength of the roots might be affected by the remaining dentine thickness. The results of the study revealed that fiber-reinforced composite posts with a dentine thickness of 2.0 mm were more fracture resistant than the other 2 groups (1.0 mm and 1.5 mm), and the cast post and core group had higher fracture strength than the resin groups. Other studies indicated that reinforcement of the intra-radicular defects might be achieved by composite resin, and that repair might increase the fracture resistance of thin walled roots. This poster describes a technique to structurally reinforce a damaged root using composite resin material before fabricating a cast post and core and a crown.
COMMUNICATION METHODS AND ADAPTIVE MEASURES FOR A PATIENT WITH USHER SYNDROME IN THE DENTAL SETTING

James D. Toppin, Dharti Patel, Amber L. Watters, Miriam R. Robbins, Alison Newgard, Mojtaba Madani

Issues: Usher syndrome is a group of conditions that is associated with hearing and visual impairment. Retinitis Pigmentosa (RP), a commonly associated visual symptom, is a degenerative disease that results in progressive visual impairment, peripheral loss, and tunneling with eventual blindness. Oral manifestations may include enamel hypoplasia. The prevalence of Usher syndrome in the United States is estimated to be 4.4 in 100,000 people.

Description: The aim of this case report is to discuss the dental management of a 54-year-old female patient with Usher syndrome (type 1) who was admitted to the New York University College of Dentistry, and to present effective communication methods and dental procedure modifications implemented to optimize her dental health. She presented with a concern for her gingival health. The patient has poor oral hygiene with heavy plaque and calculus due to her visual impairment and inability to implement proper brushing and flossing techniques.

Lessons Learned: The patient was born deaf and lost vision gradually due to RP. She learned sign language in adolescence, but now has limited visual ability and communicates through a tactile sign language interpreter. In order to communicate through tactile sign language, the patient’s hands rest on the back of the interpreter’s wrists to feel and follow the interpreters’ hand movement. Since the patient had some residual vision, primarily the ability to distinguish between light and dark, a water pick with dark and light tips that the patient could differentiate between was recommended.

Recommendations: Depending on the patient’s remaining visual ability and the timing of visual decline, some patients may experience poor oral health and ability to follow home care instructions. By focusing on the patient’s abilities rather than disability, we were able to maximize the patient’s home care regimen and adapt to her preferred method of communication.

A MULTI-DISCIPLINARY TREATMENT OF A LARGE MAXILLARY CYST AT NYUCD FEATURING DIAGNOSIS, ORAL SURGERY, ENDODONTICS, AND RE-EVALUATIVE PROCESSES

Max T.-H. Huang, Gabriel N. Hershman, Denise Foran, Steven Resnick, Oliver S. Cruz

Periapical cysts (radicular cysts) of inflammatory origin are formed by a proliferation of odontogenic epithelium derived from the cell rests of Malassez. These circumscribed radiolucent lesions commonly present in the anterior maxilla and causation is typically a compromised pulp resultant from caries or trauma. A 26-year-old female presented with a large circumscribed radiolucency in the maxillary anterior region spanning from the maxillary right central incisor to the maxillary left second premolar, bordered by the floor of the nasal cavity and sinus. Following diagnosis as a periapical cyst, the associated non-vital teeth (maxillary left central and lateral incisors) were treated with root canal therapy (RCT) in conjunction with the immediate surgical removal of the cyst via enucleation and involving bone grafting at the site. Ongoing evaluation revealed that the maxillary left first and second premolars become non-vital post surgically and were subsequently treated with non surgical
endodontic therapy (RCT). The treatment of this large maxillary cyst illustrates the importance of differential diagnosis and re-evaluation, the role of the oral comprehensive care provider in providing and coordinating a team approach to therapy, and the role that a health care facility like NYUCD, with its culture of interdisciplinary cooperation, can play in providing excellent outcomes.

MOUTH REHABILITATION BY SEGMENTED PROCEDURE: A CLINICAL REPORT

Paranhos, K., Tarapore R., Benitez, D., Ghalili, M.

Reconstruction and rehabilitation have always been a challenge in dentistry outcome. The ability to change both esthetic and function through comprehensive care is truly a satisfaction part of dentistry. However, along with the advantage to the patient, there is a challenge to understand and address the chief complaint and desires of the patient. The case presented here will illustrate a method to satisfy a full-mouth segmental care that will create holding patterns until the next phase can be addressed. This case requires advanced treatment planning that includes an open bite, reestablished both the esthetic and function without jeopardizing the function and satisfaction for the patient during the procedure. This clinical report describes a 70-year-old North American female patient with complaint about esthetic and constant temporomandibular joint (TMJ) pain who underwent full mouth rehabilitation. The posterior occlusion, mostly molar areas, was restored with dental crowns and metal restorations. The anterior teeth and premolars were restored with bonded veneers crowns. This case demonstrates that restoring functional occlusion and esthetics can be completed successfully using metal-ceramic crowns and Venners therapy adhesive dentistry as a segmented/incremented treatment planning resulting into an acceptable esthetic outcome.

RAMPANT CARIES SECONDARY TO MEDICATION INDUCED XEROSTOMIA AND DEPRESSION: A CASE REPORT

Chaitanya Raval, Marjan Moghadam

A 48-year-old male patient presented to the pre-doctoral clinics at New York University College of Dentistry, seeking emergency treatment for pain in the anterior maxilla. Examination of the patient revealed caries affecting most of his dentition. Three major contributing factors to the caries were determined to be patient compliance, polypharmacy inducing xerostomia, and depression. The patient did not return for completion of treatment after resolution of his emergency. The patient returned months later for another emergency episode at which time the progress of the caries process had rendered most of his teeth unrestorable. This presentation will include the original and modified treatment plans for this patient. Additionally, a review of the literature will be presented focusing on caries risk assessment related to the use of methadone, patient compliance and depression.
AMELOGENESIS IMPERFECTA: A CONVENTIONAL APPROACH TO RESTORING ESTHETICS, FORM, AND FUNCTION WITH PSYCHOSOCIAL IMPLICATIONS

Anthony Vu, Michael B. Ferguson

The aim of this case report is to illustrate a full mouth rehabilitation of a 29-year-old male with amelogenesis imperfecta (AI). It is a hereditary tooth development disorder in which enamel is weakened, resulting in tooth decay and discoloration. AI can present as 3 different types: hypoplastic, hypomaturation, and hypocalcified. In today’s society, there is such a high value placed on facial/dental esthetics, which begs the question “What effect does a congenital disorder have on a person’s psychosocial health?”. This clinical case addresses the patient’s psychosocial issues, in addition to describing a conventional approach to restoring form, function, and esthetics using fixed and removable prostheses.
CASE REPORT: AN IMPACTFUL RESTORATIVE PROCEDURE–IMMEDIATE DENTURES

Peter Abude, Michael B. Ferguson

A 65-year-old female presents to the pre-doctoral NYUCD clinics seeking a second opinion about her dental care. This patient reported a past dental experience where a dentist extracted her front teeth without informing her first. This experience she said made her very fearful of the dentist. The patient currently resides in NYC and she’s an Artist. Given her line of work, she presented with a “CC”: “I want Beyonce’s smile.” The restorative challenges faced were not just dental related but also had physiological, psychological, and social components that had to be considered during her treatment.

PROSTHODONTIC REHABILITATION OF A PATIENT PRESENTING WITH INADEQUATE INTEROCCLUSAL REST SPACE

Max T.-H. Huang, Steven Resnick, Marjan Moghadam

Insufficient interocclusal rest space (freeway space) in an adult patient may result when the vertical dimension of occlusion (VDO) deviates from the estimated vertical dimension of rest (VDR) of 3-4 millimeters. Such a deviation may be caused iatrogenically with prostheses that violate the required interocclusal rest space. This may severely compromise the patient’s esthetics, phonetics and masticatory efficiency. A 73-year-old male patient presents with a disproportionally elongated fixed dental prosthesis in the maxillary anterior opposing an implant-supported mandibular complete overdenture. His VDO measures 3 millimeters larger than his VDR resulting in a negative interocclusal rest space. A comprehensive prosthodontic treatment plan designed to restore the patient to an appropriate VDO includes the fabrication of maxillary survey crowns, maxillary removable partial denture and an implant-supported mandibular complete overdenture. This case report will be presented as well as literature reviewing the concept of interocclusal rest space.

A MINIMALLY INVASIVE SURGICAL TECHNIQUE FOR REGENERATIVE TREATMENT IN THE ESTHETIC ZONE: AN APPROACH TO LIMIT POST SURGICAL MORBIDITY AND TO PRESERVE ESTHETICS

Adi Einhorn, Giorgio T. Divincenzo, Vera W. Tang

The goal of regenerative surgery is to alter or heal the anatomic defects produced by periodontitis. Regeneration is defined as the restoration of the tooth-supporting tissues including cementum, periodontal ligament, and alveolar bone over a previously diseased root surface. Data from controlled clinical trials and meta-analyses from systematic reviews demonstrate
that regenerative treatment using allograft bone and enamel matrix derivative provides added benefits in terms of clinical attachment gain and probing pocket depth reduction as compared with access flap alone. A 37-year-old female presented to the NYU postgraduate clinic of periodontology and implant dentistry with a localized intrabony defect on the mesiolingual aspect of tooth #8. A minimally invasive surgery using enamel matrix derivative and allograft bone has been proposed with the aim of producing minimal wound size and minimal flap reflection. This serves to reduce pocket depth, decrease morbidity, and preserve esthetics. The purpose of this case report is to describe the surgical technique and to present the clinical outcome.

MARFAN SYNDROME–DENTAL MEDICAL CONSIDERATIONS: CASE REPORT

Peter A. Mychajliw, Joan A. Phelan, Diana Campos, Irina Frolov, Tauseef Ahmed

A 34-year-old Hispanic female presented to NYUCD undergraduate comprehensive care group practice with a chief concern of “I want to get my two front teeth fixed”. The patient related a confirmed diagnosis of Marfan syndrome as well as multiple significant systems’ problems including aortic valve replacement, aneurysm repairs, blood transfusions, hypertension, vision and hearing issues, asthma and migraines. After extensive medical, dental, genetic data intake and summation, an evidence based best practice protocol (EBBPP) concept was utilized to formulate a comprehensive care plan for this complex patient type. A clinical question was developed to aid in this approach: In adult patients seeking comprehensive dental care, are there any differences in oral/dental manifestations in those with no significant medical history and those with documented Marfan syndrome? The purpose of this poster is to show how the establishment of an interactive patient/student/faculty environment can foster critical thinking on many levels in dental students, thereby enhancing their life long learning tools, and can promote excellent patient care possibilities.

ORAL FLORID KAPOSI SARCOMA IN A YOUNG PATIENT WITH AIDS: CHALLENGES IN DENTAL MANAGEMENT

Miriam R. Robbins, Tochuwu Okeke, Amber L. Watters, Alison Newgard, Dharti N. Patel, James D. Toppin

This case report presents the psychosocial and oral health care challenges in the management of a 29-year-old male who underwent chemotherapy and low dose radiation (XRT) for florid Kaposi Sarcoma (KS) of the digestive tract including the oral cavity and face. Oral health care needs of patients with AIDS can be diverse and is largely influenced by the patients’ immune status and degree of xerostomia, which is a common side effect of both HIVD and highly active anti-retroviral therapy (HAART).

Description: The patient presented with a history of HIV infection diagnosed in December 2010. Upon initial evaluation at the New York University College of Dentistry Special Needs Clinic, he was undergoing chemotherapy. In addition to the oral florid KS causing dyspnea, KS was also diagnosed in the colon and larynx. Oral findings at presentation included, multiple carious
lesions, generalized moderate to severe periodontitis, grade 2–3 mobility of multiple teeth and oral florid KS involving the
tongue, hard palate and gingiva. The immediate treatment plan included extraction of maxillary incisors and gross scaling in
order to allow the patient to begin XRT. Patient returned after XRT for continued management.

Lesson Learned: For most patients, a HIV diagnosis is devastating. This patient was physically, mentally and emotionally
exhausted from dealing with his disease and sequale. We worked with him to restore esthetics, form, and function, while
keeping his psychological well-being at the forefront of our decision making process.

Recommendations: Understand the underlying reason why a patient is seeking dental care and tailor treatment plans to
meet that need. This patient’s plea was “I have been a recluse for one year, I just want to be able to hang out again”. Our
management goal was to maintain as many teeth as possible, even if only for the interim, and replace his missing anterior
teeth giving the patient a much needed psychological boost.

THE DIAGNOSTIC WAX UP AS A GUIDE FOR TREATMENT PLANNING
AND PRESENTATION

Jasmine Im, Marjan Moghadam

A 41-year-old female patient presented to New York University College of Dentistry with the chief complaint: “I want to close
the space between my front teeth.” The maxillary central incisors were determined to be hopeless and required extraction.
Treatment options were presented to the patient including fixed and removable prostheses. The challenge for this patient’s
treatment was the presence of multiple large diastama making space management difficult. Visual representation of possible
treatment outcomes with different approaches to space management of the maxillary anterior region were created and
presented to the patient. The different treatment modalities and their visual representations created in wax for this patient will
be presented as well as a review of the literature on the uses of the diagnostic wax-up in treatment planning and presentation.

PEDIATRICS AND DENTISTRY: THE INTERDISCIPLINARY TEAM

Jenny Mintz, Alyson Leffel, Jill Fernandez

As part of NYUCD’s Initial Clinical Experience (ICE), second-year dental students visit Head Start programs to give oral
hygiene instruction, administer dental exams, and provide preventative services to children, three- through five-year-old. In
order to facilitate the best treatment possible with this young population, a social work intern has joined the ICE team. The
social work intern actively engages with children and also collaborates with dental students in recognizing the particular needs
of the children. The interdisciplinary work in ICE represents another step toward patient-centered care. The social work intern
supports the dental students to practice holistically with the patients, to build trust with them, and to identify their feelings
and respond accordingly. As a result, the dental students learn better communication skills, the social work intern practices
the interdisciplinary team approach, and patients have more positive dental experience.
MOTHER/DAUGHTER CASE SERIES ON ORAL MANIFESTATIONS OF SYSTEMIC LUPUS ERYTHEMATOSUS

Alison Newgard, Jason Kwan, Edly Destine, Amber Watters, James Toppin, Miriam Robbins, Dharti Patel

Issues: Systemic Lupus Erythematosus (SLE) is a type III hypersensitivity reaction in which antibody-immune complexes cause immune responses that can affect any part of the body. Approximately 95% of patients with SLE have some form of oral involvement either directly from the disease or as a side effect of medical treatment. The goal of this case series is to compare oral manifestations and dental treatment options for a mother and daughter diagnosed with SLE.

Description: This study focuses on two patients, both with a diagnosis of SLE, treated at the New York University College of Dentistry Special Needs Clinic. The progression of symptoms was tracked by evaluating oral complications including xerostomia, lesions and ulcerations, dental decay, gingival health, and presence or absence of secondary infections. The variation of symptoms between family members and necessary treatment modifications were compared.

Results: The oral manifestation of SLE can vary greatly between patients, as well as between members of the same family. However, one common side effect is xerostomia, which leads to an increased risk of dental caries. SLE often first manifests itself in the mucosal lining of the mouth with ulcerations and candida infections. In our case, the daughter experienced a high rate of dental decay, while the mother remained caries free but did experience periodontal disease and had multiple missing teeth.

Lessons Learned: Oral health professionals, who treat patients with SLE, should familiarize themselves with potential intraoral symptoms of SLE. Patients with lupus are best treated with frequent recall visits aimed at controlling oral inflammation and identifying trigger mechanisms. Aggressive management of xerostomia to prevent oral infections such as dental decay or periodontitis can lead to improved quality of life. Prevention strategies, periodic maintenance, patient education, and family counseling on oral care are key to managing oral manifestations of the disease.
PREVENTIVE ORAL STRATEGIES IN A PATIENT WITH CREST SYNDROME

Dharti Patel, Morgan Lewis-Smith, Amber Watters, Miriam Robbins, James Toppin, Alison Newgard

Introduction: Systemic Sclerosis (SS) can be an orally debilitating autoimmune disorder causing cutaneous oral fibrosis, microstomia and osteolytic changes in the head and neck region, all of which make oral health care a challenge. Progression is marked by fibrosis of the skin caused by deposition of Type I & III collagen and can affect other systems of the body. A subset of SS is CREST syndrome marked by Calcinosis, Raynaud’s phenomenon, Esophageal Dysmotility, Sclerodactyly & Telangiectasia that affects 19 of a million people in the US mostly females in their 3rd and 4th decades of life.

Background: A 35-year-old AA female presented for dental care with h/o R labial commissure tear during attempts to remove her decayed 3rd molars and traumatized mucosa during prophylaxis and scaling due to limited mouth opening. Severe sclerodactyly limited her brushing. PMH: CREST syndrome w/o telangiectasia, SS, Sjogrens syndrome, hypotension. Meds: Chlorhexidine rinse, Prilosec, Norvasc, Cell Cept, Folic Acid, 81mg ASA. EOE: “mouse facies” appearance, microstomia, leathery taut facial skin, sucken in posterior cheeks. MIO: 16mm, unable to close lips, protruding teeth IOE: multiple caries, poor OH, calculus and BUP. RX: severe resorption of ramus and angle of mandible B/L; widened PDL, severely flattened arthritic condyles. Tx: 1. PT/Manual oral augmentation: stretch L/R commissure w/ thumbs for 20 sec, repeated few times/ day; tongue depressors to prop jaw open, hold for 20 sec repeatedly few times/day. 2. OHI: Modified pediatric toothbrush with a putty handle, F- supplements, hydration, lubrication w/Biotene. 3. Hand scaled every 3 months.

Results and Conclusions: Mouth opening increased to 22 mm from 4 week therapy, now a handpiece and toothbrush can fit into her mouth for treatment. Diamine fluoride will be considered to arrest caries and commissurotomy if worsens.
PEDiatric BiteWING exposure to ORGANS OF THE HEAD AND NECK


Background: A literature review revealed that there is a lack of valid data on bitewing exposure dosimetry to the head and neck organs of pediatric patients. Here we are determining the actual dose to two anthropomorphic juvenile (5-year and 10-year-old) phantoms.

Objective: To yield dosimetric measurements on the X-ray exposures to the organs of the head and neck from bitewing radiographs taken of two juvenile CIRS phantoms using round and rectangular collimation for both film and digital radiography.

Methods and Materials: Two anthropomorphic CIRS juvenile phantoms (5 yr and 10 yr old) were exposed to bitewing radiographs using a Gendex 765 x-ray machine at the manufacturers pre-set film and digital pediatric settings for both rectangular and round collimation. Optically Stimulated Luminescent (OSL) dosimeters were placed in 21 head and neck pre-manufactured slots in each phantom. All exposures were repeated 15 times and divided by 15 to evaluate the average dose per view. Average organ dose calculated in micro Gray was based on 4 bitewing views. Organ fractions irradiated were determined from ICRP-89. Organ equivalent doses and overall effective doses (micro Sieverts) were based on 4 bitewing views and the ICRP-103 tissue weighting factor.

Results: Radiation exposures using rectangular and round collimators were about the same for both phantoms. The effective dose in micro Sieverts for the 5 yr old ranged from a low of 1.8 (digital-rectangular) to a high of 3.1 (film-round). The 10 yr old ranged from a low of 1.5 micro Sieverts (digital rectangular) to a high of 2.8 (film-rectangular) and 2.7 (film-round). Thyroid and other organ doses were low, with the highest doses seen in the glands, extrathoracic airway, and the oral mucosa.

Conclusions: This was the first study utilizing juvenile CIRS phantoms in conjunction with OSL dot dosimetry to provide organ dose data from pediatric bitewing radiographs. Digital imaging and rectangular collimation should be used.

The Effectiveness of a Tutorial on Domestic Violence Awareness for Dental Professionals

Maureen McAndrew, Lee C. Kojanis, Gaelle C. Pierre

Domestic violence (also known as intimate partner violence (IPV)) is a public health problem of epidemic proportions. According to the National Coalition Against Domestic Violence, one in four women will experience domestic violence in her lifetime. Because the vast majority of injuries occur in the head and neck area, dental professionals are in a favorable position to identify signs of IPV in the course of routine examinations. Unfortunately, dentists are the least likely of all health professionals to identify and refer victims of abuse. Much of this failure by dentists to assist victims of domestic violence can be attributed to a lack of knowledge and training.

This study seeks to understand if New York University College of Dentistry’s (NYUCD) online domestic violence tutorial
is effective for senior dental students about to embark on their professional careers. The one hour program is divided into modules and based on the RADAR model developed by the Massachusetts Medical Society. Modules include an overview of the problem’s scope, types of abuse, barriers to reporting, injuries and behaviors of the victims, elder abuse, strategies to conduct patient interviews and properly document injuries, referral sources, and reporting statutes.

This study sets to determine the effectiveness of the tutorial on senior dental students' knowledge, attitudes, beliefs, behaviors (KABB) using a reliable and validated instrument adapted for health professional students, the Physician Readiness to Manage Intimate Partner Violence Survey or (PREMIS).

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EFFICACY OF A SEALANT AND PREVENTIVE PROGRAM IN CHILDREN AGE 6-12 DURING DENTAL OUTREACH IN JAMAICA

Charlie Larsen, Michelle Kim, Esther Yang, Noel Brown, Ralph Cunningham

In the years 2007 to 2011, dentists and dental residents from New York University College of Dentistry and Health Care International Reachout, Inc., traveled to the Hoolebury School, Saint Ann Parish, Jamaica, where they provided treatment to 172 children. The service project focused on dental health promotion, education and prevention. Records were kept on treatment received and the presence of decay. The evidence shows a significant improvement of decay status from a first to a second visit. Ever having a previous visit, the number of previous visits, ever having a previous seal, and the number of previous seals are all predictive of less decay. The statistical evidence using paired binomial tests for discordant pairs and logistic mixed effects models strongly indicates the positive benefit of dental visits and placing of sealants on permanent molars in this study population.

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MASTERING CAD/CAM TECHNOLOGY TO IMPROVE STUDENT SKILLS IN THE SIMULATION LAB

Angela De Bartolo, Kay T. Oen, David Hershkowitz, Denise Estafan, Mark S. Wolff

Teaching students innovative CAD/CAM technology allows them to develop critical thinking in their performance by self assessment and evaluation. The second year students at New York University College of Dentistry, as part of their Esthetic course, are given a unique opportunity to use CAD/ CAM technology to evaluate restorative procedures in a pre-clinical setting. The students are taught to prepare typodont teeth for the fabrication of inlays, onlays and crowns on a CAD/CAM machine as well as using conventional modalities.

The challenge of being able to assess and critique ones work is sometimes difficult for a student. Through the use of CAD/ CAM technology the student can have a large, visual, three-dimensional picture of the preparation. This will allow them to think, learn, and self-evaluate in a more tangible manner. Students at New York University, College of Dentistry, through initial exposure to CAD/CAM technology in the simulation preclinical lab, are given the opportunity to enhance their skills by integrating complexity, precision, creativity, and self assessment to better their learning experience.
DENTAL CONSIDERATIONS IN THE TREATMENT OF THE HEMOPHILIAC PATIENT

William Maloney, George Raymond, Gary Berkowitz

Certain disorders which patients possess require various precautions and possible modifications to the usual course of delivery of dental care. Hemophilia is one such entity. Virtually all aspects of dentistry - from the prescribing of oral analgesics to the possible need for factor replacement therapy prior to certain oral surgery procedures - must have precautions made for the hemophiliac patient. A comprehensive understanding of all necessary precautions must be achieved prior to commencing any dental procedure, even an oral examination, on a hemophiliac patient.

There are two main types of inherited hemophilia - Type A and Type B (Christmas Disease). There is a deficiency of factor VIII in Type A while there is a deficiency in factor IX in Type B. The gene for hemophilia is located on the x chromosome. They are clinically similar x-linked recessive disorders. Although there are no inherent differences in the oral health of an individual with hemophilia and those of an average individual it is imperative that meticulous oral hygiene be practiced in hemophiliacs in light of the many potential problems associated with oral surgery. Thus, the dentist plays an extremely vital role in the overall well-being of the hemophiliac. In turn, it is imperative that dental students be aware of the many possible modifications to treatment and/or contraindications which are encountered while safely treating a hemophiliac patient or another form of bleeding disorder.

THE POTENTIAL DENTAL AND CRANIOFACIAL SEQUELLAE OF A PATIENT’S ILLICIT DRUG USE

William Maloney, George Raymond, Gary Berkowitz

Dentists and dental students encounter a wide array of individuals presenting for various professional dental services on a daily basis. These drugs cause a wide array of issues - physical, psychological, economic, and legal - for the user.

The dentist must be aware of this drug use in their individual patients in order to: 1) avoid possible contraindications during dental treatment; 2) be aware of the many oral and craniofacial manifestations of such drug use; 3) be able to provide necessary dental treatment to combat the dental/oral ravages of drug use and 4) be able to refer such patients, if so desired by the patient, to the proper professionals for counseling.

This presentation will examine the dental/oral manifestations of four commonly used drugs- methamphetamine, heroin, cocaine, and cannabis. It will make the dental practitioner aware of the many oral conditions which can be caused by the usage of certain illegal drugs. It will also review what precautions or changes to routine dental treatment might be necessary in such individuals.
AN INTRODUCTION TO ISSUES IN ORAL HEALTH FOR ASPIRING DENTISTS: A NEW “HEAD START”

Neal G. Herman

A co-listed Master’s level course at New York University entitled “Issues in Global Pediatric Dentistry,” designed for students in the disciplines of Global Public Health and Oral Biology, seeks to present an overview of topics and controversies in dentistry and oral health care internationally to potential applicants to dental school. Areas such as oral health disparities, diet and nutrition, community water fluoridation, health services infrastructure, practice distribution patterns, health care delivery models and the relationship are introduced and discussed as they pertain to oral health and cultures all around the globe. These are topics generally not included in typical dental school curricula, and students are exposed to facets of the profession they may not encounter in a traditional dental education tract.

Additionally, guests and visiting faculty conduct seminars, to expose students to working professionals in the field of public health dentistry and dental education. Students are mentored and have the opportunity to “learn from the pros.” An effort is made to showcase the diversity of choices and opportunities available to those achieving the DDS/DMD degree. Topics of discussion include career guidance, special outreach interests and opportunities, oral health systems and practice in developed and developing countries around the world, and challenges at the local, state and federal level to provide early and preventive interventions to underserved populations across the nation and abroad.
TEACHING PRESCRIPTION WRITING SKILLS: A CHALLENGE FOR EVERY PROFESSION

Marc Henschel, Debra M. Ferraiolo

Graduating dental students who are confident and knowledgeable in prescription selection as well as writing is one of the dental educators’ biggest tasks. Traditionally in dentistry, as well as medicine, what is taught in pharmacology classes is a great deal of information with little instruction on practicality and problem solving. The World Health Organization (WHO) responded to this challenge with the development of the Guide to Good Prescribing and the Teachers Guide to Good Prescribing. The WHO guides are tools for faculty instructing medical and dental students in a more problem-based pharmacotherapy. NYUCD students experienced the universal challenge in developing prescription selection and prescription writing skills. Many students will go through their clinical years with only a brief experience writing a prescription for a patient. In many dental schools, students are taught prescription writing in their History and Physical class as well as exposure to it in Pharmacology. Both courses are presented in the second year of Dental School. These programs are lacking in instruction of therapeutics. The challenge presents in linking the didactic courses in dental school to the practical use of this knowledge in the clinic setting. Moreover, their exposure during the third and fourth year is ultimately dependent upon the clinical needs of the patients on their roster. A reference list of prescriptions and the situations where they would be used was developed within the Department of Oral Maxillofacial Pathology, Radiology and Medicine. These “handbooks” were made accessible to the students on the intranet, in documents associated with our department courses, as well as on paper.

ORAL HEALTH EDUCATION FOR NEW MOTHERS ON THE POSTPARTUM UNIT

Lily Lim, Jill Fernandez, Donna Hallas, Peter Catapano, Marcia Daronch

Purpose: The purpose of the study was to implement an inter-professional oral health educational intervention for mothers of newborns on the postpartum unit and to assess the current awareness of mothers on infant oral health.

Methods: An inter-professional team (pediatric dentists, pediatric residents, general dental students, dental hygienists, newborn and pediatric nurses, pediatric nurse practitioners (PNPs) and PNP students) from New York University developed a collaborative intervention at Bellevue Hospital to educate mothers of newborns prior to hospital discharge. One-half watched a DVD and the others received routine oral health instructions by a professional as part of newborn discharge. They all received educational materials about oral health care. All mothers completed a pre-test prior to receiving any intervention. Infants were recalled at 6 months for an oral health examination and caries risk assessment. Each mother took a post-test (which was the same as the pre-test) and received follow-up educational intervention. Questionnaire responses were analyzed.

Results: The program implementation was successful, and 94 mothers were included in the study. At 6 months follow-up, only 9 mothers (9%) returned to the clinic with their babies for an oral health examination. Most of the mothers responded correctly to the questions, however, 8% were unaware of vertical transmission of streptococcus mutans, 25% did not think fluoride is safe and helps to prevent cavities, and 9% did not think it is important for their baby to see a dentist by age one.
Conclusion: Newborn and Postpartum nurses should be educated to provide oral health education to parents of newborns prior to discharge. Pediatric and family primary care providers should also be educated to perform oral health assessments and apply fluoride varnish as a primary prevention strategy. Infants should be referred to see a dentist by age one to establish a dental home.

COMPARING DENTAL STUDENT AND FACULTY USE OF SOCIAL MEDIA

Linh Phan, Maureen McAndrew

Social media, also known as Web 2.0, are web-based technologies where users share information and create new content. Used primarily for socialization purposes by today’s students, social media promises exciting opportunities for collaboration and knowledge creation in dental education. However, a significant generation gap may be impeding the incorporation of many of these technologies into dental courses. A survey instrument was created to learn more about the differences in student and faculty use of social media at NYU College of Dentistry. 151 student participants and 38 faculty participants responded to the 19 item anonymous Survey Monkey survey of approximately three minutes in length about whether they use social media sites such as YouTube, Facebook, LinkedIn, and Twitter specifically and were also asked to list other social media sites frequented. An analysis of differences in usage between the two groups was conducted. The results revealed that students are far more likely to use YouTube and Facebook than faculty and they visit these sites more frequently. Faculty used LinkedIn more frequently than students. Since students are comfortable using these sites to collaborate for personal and educational reasons, faculty may need professional development on ways to incorporate these methodologies into their existing courses.

THE RELATIONSHIP BETWEEN SMOKING AND PERIODONTAL DISEASE: A REVIEW OF THE LITERATURE AND SMOKING CESSATION PROTOCOL USED AT NEW YORK UNIVERSITY COLLEGE OF DENTISTRY

Gene Sherwin, Yaakov Friedman

Introduction: Periodontal disease is the most common cause of tooth loss among adults. A review of the literature over the past twenty years has demonstrated a positive correlation between cigarette smoking and a higher risk for periodontal disease. There is very strong evidence for more dose related periodontal destruction among smokers and a return to a more healthy status once periodontal therapy and smoking cessation counseling has been given and accepted.

Methods: In the approach utilized at NYUCD smoking cessation therapy is broken up into the 5 A’s: Ask, Advise, Assess, Assist and Arrange. We “Ask” the patient about their habit, which includes how often they smoke, when they started and
have they ever thought about quitting. We “Advise” the patient to quit smoking and “Assess” the patient’s readiness to quit. When ready, we “Assist” the patient by providing a free starter kit for nicotine replacement therapy (NRT) and information about the New York State Smokers Quitline, which provides free telephone counseling. We then “Arrange” follow-up to make sure that the NRT that the patient is on is suitable. Patients can also be referred to our Nursing Faculty Practice for counseling if necessary.

Conclusion: The implementation of periodontal treatment, home care instruction and smoking cessation guidance can overcome and reverse the destructive effects of smoking. During their dental school education, dental and hygiene students should be taught these skills in order for them to be better equipped to provide optimum care in dental practice.

Toward this end we have prepared a protocol for treatment at New York University College of Dentistry that we expect will become a standard for instruction on a global level.
ASSESSING STUDENTS’ PERFORMANCE IN A CLINICAL SETTING

Debra M. Ferraiolo, Analia Veitz-Keenan, Silvia Spivakovsky

Traditionally, assessment of clinical competence for undergraduate students is a challenge for faculty in dental, as well as medical education. An accurate and meaningful evaluation form is a crucial component to performing that mission. Since the assessment for clinical competence depends on several factors, the development of reliable tools for measuring student performance is important. Student knowledge, attitude and skill relative to their level of training can sometimes be assessed differently, depending on the evaluator training and subjectivisms. Exacerbating the problem is the class size and clinical faculty with different backgrounds and experiences that may influence the manner in which they evaluate students. Validated forms as a means of assessment can be great tools to gauge competency and give daily feedback to the students working in a clinical environment. The use of modern digital technology enhances the means of assessment.

Our goal is to have faculty properly assess and evaluate students with a new digital program created by admissions faculty in conjunction with the NYUCD informatics team. The program is called SPIA (Student-Patient Interaction Assessment). The assessment methods were expected to be reliable, valid and feasible to use. Faculty was initially trained in a transitional format. A pilot digital program was launched with select faculty in order to detect any problems with the program prior to it being launched to the faculty. In the Admissions clinic, the students are scheduled at regular intervals several times a year. Multiple tasks need to be completed by the students to reach the expected level of competency. The program was well received. Students are very receptive and appreciate the immediate feedback. Faculty appreciates the program’s simplicity of use, accessibility by any portable device with an internet connection and eliminates the need for storing large amounts of paper.

EVALUATING HYGIENE STUDENTS RADIOLOGY PERFORMANCE IN A CLINICAL SETTING

Fern Dembner

The updated recommendation criteria for taking dental radiographs for new patients and recall patients published for the FDA made in conjunction with the ADA was an important change in the practice and teaching dentistry. This valuable change and the use of ALARA Principles has affected dental educators teaching their students, prompting a review of past practices and the revision of the teaching for dental hygiene students in their radiology rotations and enforcing new clinical applications.

A concern for the faculty to grade students effectively was raised and provided an opportunity to redesign the clinical radiology rotation schedule and develop a digital grading process for tracking student performance. Time management is an important factor to implement theory and practices to maintain that each dental hygiene student will receive a comprehensive experience within the radiology clinical rotations.

Due to the amount of time that students are scheduled in the radiology clinic, it can be challenging to fulfill the needed valuable experiences to achieve competency requirements. The course requires that students complete a certain number of radiographs in order to complete those goals.
The grade tracking system allows students to fulfill the requirements by providing them with opportunities to incorporate radiographs taken in several clinical areas. An electronic standardized grading system provides faculty with the ability to track performance of a large number of students and the ability to track these same students from semester to semester.

For students who do not fulfill the required amount of radiographs in the mandatory radiology clinical rotations, supplemental films can be tracked and incorporated for their grade competencies. The students are encouraged to grasp each aspect of the radiology skills, with faculty reinforcement and assessment in each clinical experience. A “step by step” slow paced approach will then create a strong and balanced radiology foundation.

AN APPROACH TOWARDS AN ACCELERATED INTRODUCTION OF D2 STUDENTS INTO CLINICAL PATIENT CARE

Gene Sherwin, Angela De Bartolo, David Hershkowitz, Mark Wolff

Purpose: Traditionally at NYUCD the rising third year (D3) dental students begin their first clinical patient care experience in late May along with the existing class of rising fourth year (D4) students. As D2 students there was opportunity to visit the clinical setting on a limited basis for observation and possible assisting of current D3 and D4 students. However no formal instruction was given in preparation of actually treating their “first patient.”

Beginning the student clinical experience earlier, specifically, in January of the D2 year, rather than May/June, is desirable as the protocols from simulation and bench labs and the connection to the basic sciences are still fresh in their minds. An earlier clinical experience also acts as an orientation to prepare them for their full indoctrination into the Group Practices that will occur in late May.

Methods: Six D2 students are paired off and assigned to three chairs for two morning sessions per week. They work under a dedicated faculty member for the entire session. In this relaxed, stress free environment, they are introduced to clinic managers, patient service representatives, Academic Coordinators (AC), the supply desk, Dentrix and are offered guidance for completing a patient’s chart. Students also have their own charts so they are able to obtain medical and dental histories and vital signs on each other, perform intra and extra-oral exams, record periodontal charting, take appropriate radiographs and impressions for diagnostic casts. After this preliminary preparation, the D2 students are then ready to receive their first actual patients from the AC. This new approach allows for a D2 student to actually begin treating a new patient as early as January or February of the D2 year.

Conclusions: Having the opportunity to work with the undivided attention of a dedicated faculty member for approximately a dozen patient encounters beginning in January of the D2 year should enable the D2 students to enter the D3 year in June with much greater confidence in their abilities to interact successfully with their patients.

When new third year students are treating patients every day in clinic, the patients will also see that the students are at ease and familiar with Group Practice procedures.
RE-FERTALIZING THE LANDSCAPE CONNECTING SCIENCE TO TECHNIQUE PRIOR TO PERFORMANCE

Steven Resnick, Eric Studley, Collen Watson, Peter Hertz

By necessity, dental students are taught both basic science and clinical technique prior to their ever treating live patients. Unfortunately, at the time of the initial teaching, students lack the clinical experience, perspective, and frame of reference to understand the true significance of these teachings. In addition, in some modalities, there is sometimes a significant time lag between the actual initial education and the subsequent translation into clinical experience. To refresh this knowledge and to enable the students to have total understanding of their clinical experiences a new program was created within a single Group Practice that closed the knowledge/practice gap and improved clinical success and patient outcomes. The program consisted of a 45 minute lecture/seminar every other week at 7:30 AM immediately prior to our full day clinical session. The program was conducted by the Group Practice Director with occasional faculty presentations as well. Included in the series, were topics involving personal growth and development as well. Attendance was optional and available to both students and faculty of our Group Practice.

CHANGES IN THE JOB MARKET FOR DENTISTS EVALUATED THROUGH A CLASSIFIED ADVERTISING INDEX

Ellen Lee, Brian Chin, Katie Xia, Arthur Goren, Candace Lee

There appears to be a changing trend reported in the dental literature where recent dental graduates are looking to work in dental chain group practices. Dentists are more likely to go and work in dental chain group practices and less likely to go and work in private solo practices. This study aims to determine and track the changes in the dental job market. All opportunities available jobs that were advertised in the Journal of the American Dental Association from January 2007 through December 2012 were collected. The job listings were tracked according to two separate parameters: private solo practice vs. dental chain group practices, and regions of the United States. In order to identify changes, statistical comparison was made between 2007-2009 and 2010-2012 to analyze changes.

A total of 6,568 opportunities available advertisements were collected. Based off of the compiled classified advertisements and the statistical analysis of their trends, there is evidence that there may have been shifts within the dental job market. There was a significant decrease in opportunities available advertisements in 2009 for private solo practices and a slight recovery occurred in 2010 and 2012. Private solo practice job positions decreased from 65% of the total in 2007-2009 to 35% in 2010-2012. There was a significant increase in opportunities available advertisements in 2012 for dental chain group practices. Dental chain group job positions increased from 22% of the total in 2007-2009 to 77% in 2010-2012. Shifts were seen more toward dental chain group practice positions in the Midwest and South regions. Declines were noted in private solo practice positions in the Northeast and West region.

The job market in dentistry can be traced by using the opportunities available classified advertising index. The information obtained through the advertisement can be helpful for planning for the future. Economic factors and student debt may have contributed to the shifts within the dental job market.
CLINICAL EXPERIENCE WITH SPECIAL CARE DENTISTRY IN PRE-DOCTORAL EDUCATION: THE NEW YORK UNIVERSITY COLLEGE OF DENTISTRY SPECIAL NEEDS CLINICAL ROTATION

Amber L. Watters, Miriam Robbins, Alison Newgard, Jeanine Stabulas-Savage, Dharti Patel, James Toppin

Background: Patients with special needs (PSN); people with physical, cognitive, or emotional disabilities experience a higher burden of oral disease than the general population and often encounter barriers to care. These barriers include a lack of experienced providers who are willing to treat people with special needs.

Methods: A pretest-posttest survey, with a quasi-experimental design, was utilized to evaluate the effectiveness of the New York University College of Dentistry Special Needs Clinical Experience. Six variables were recorded and assessed: the dental student self-assessed comfort, self-efficacy, current and future interest in providing care to PSN, interest in obtaining knowledge in treating patients with special needs, desire for clinical experience, service-minded attitude, and perception of the abilities of people with physical and developmental disabilities.

Results: 102 responses were evaluated and five variables were found to be statistically significant. The data were analyzed using SPSS (v.21) using Wilcoxon Signed Ranks test for two related samples of nonparametric data. The following questions were found to have a statistically significant change when post-test responses were compared to pre-test responses: I am interested in post-graduate education that includes treating patients with special needs or medical complexities; I believe that patients with special needs care LESS about oral health than the general population; I am confident in treating patients with medical complexities; I am confident in treating patients with cognitive, physical, or developmental disabilities; and I plan on treating patients with special needs or medical complexities in my future practice.

Conclusion: Providers often cite a lack of clinical experience as a barrier to comfort in treating PSN. Incorporating a clinical rotation in pre-doctoral education may increase student comfort and therefore encourage a willingness to treat PSN in future practice.

ASSESSING THE LONG TERM IMPACT OF A FACULTY DEVELOPMENT PROGRAM

Maureen McAndrew, Suzanne Motwaly

Dental faculty development programs are increasingly being implemented for a variety of reasons: to improve teaching skills, reinforce relationships with colleagues and mentors, foster career development, and to support curricular initiatives in dental education. The Excellence in Clinical Teaching Program at New York University College of Dentistry (NYUCD) was developed in 2005 to enhance the teaching skills of clinical faculty members in the college’s largest department, General Dentistry (later renamed Cariology and Comprehensive Care). The program consists of five formal sessions supplemented by readings, reflection papers, and a final project conducted in a small group setting with no more than ten participants. From
2005 to 2009, 59 faculty members in eight separate cohorts successfully completed the program. Because new educational activities, improved peer relationships and networking is frequently noted post program participation, long term follow-ups are recommended to assess development program effectiveness.

Purpose: This long-term follow up study of the Excellence in Clinical Teaching Program includes the use of a comparison group of faculty who did not participate in the program. The project was reviewed by NYU’s Institutional Review Board and was granted exempt status.

Methods: In Fall 2011, 48 of the original 59 participants who remained active faculty (currently teaching at least one session a week at NYUCD) were asked to complete a follow up survey asking about the long-term value of the Excellence program and about their academic career progression since completing the program. Thirty-three faculty complied with our request. In order to create a comparison study, the results of those respondents hired between 2005 and 2009 as part-time clinical faculty were compared with those of a group of part-time clinical faculty from other departments also hired between 2005 and 2009. (The comparison group was not eligible to participate in the Excellence program because participation was limited to Cariology faculty before 2009.) 15 respondents fit the eligibility criteria for the participant group and 25 of the 158 clinical faculty members who fit the eligibility criteria for the comparison group agreed to complete a survey that chronicled their academic accomplishments, i.e., promotions, oral presentations, publications, responsibilities, etc. since starting their careers at NYUCD.

Results: 93% of the participant group reported that they were more likely to confer with peers about teaching issues after taking the course and 100% of the participant group recommended or would recommend the course to their peers. The participant group rated their teaching clinical skills more conservatively compared to the comparison group. 40% of the participant group rated their clinical teaching skills as “Excellent” and 53% as “Good” after completing the program. Whereas, 56% of the comparison group self-rated their clinical teaching skills as “Excellent” and 44% as “Good.” 73% of the participant group said they increased and/or expanded their teaching responsibilities compared to 60% of the comparison group reporting increased responsibilities. 47% of the participant group was promoted to a full time position versus none of the comparison group. And 3% of the participant group was promoted to a higher rank versus 7% for the comparison group. There was no significant difference between the participant and the comparison groups in attendance at ADEA annual meetings, presentations at professional meetings, publications, or teaching awards.

Conclusion: Overall, participation in the Excellence in Clinical Teaching program was viewed favorably by the participants two to six years after the program ended. The results were somewhat mixed when comparing the academic career progression of a smaller group of participants with that of a group of non-participating faculty.

A FRAMEWORK FOR TEACHING CRITICAL THINKING IN DENTAL EDUCATION

Rory A. Chong, Jeffrey W. Goetz, Mitchell J. Lipp

For more than a decade, a dominant theme in dental education has been teaching dental students to develop and apply critical thinking skills. Critical thinking is the first domain identified by ADEA toward competence for the new dentist and acquisition
of such skills is essential to the development of future practitioners. However, a lack of consensus in operational definitions of critical thinking has precluded analysis and evaluation of the best practices in teaching and assessment of such skills. This qualitative research study has identified and combined criteria from current definitions of critical thinking into one that is more operational. Definitions of critical thinking were reviewed in literature published by the following professional dental organizations: ADEA Commission on Change and Innovation (ADEA CCI), ADEA’s website (www.adea.org), and ADA’s Commission on Dental Accreditation (CODA). The term “critical thinking” was traced in 240 articles over the last 20 years using the following four databases: Medline (via Pubmed), CINAHL, ERIC, and Scopus. The term “critical thinking” appeared in a total of 70 abstracts, and these articles were selected and read independently by two authors. Uniquely stated explicit and implicit definitions of critical thinking were discussed, coded, and grouped according to similar relationships, resulting in the emergence of three core domains. Domains were refined in order to include descriptive words most relevant to current dental educational practices, thus creating our operational definition of critical thinking. A framework to assist in developing and teaching critical thinking skills was constructed using this refined operational definition of critical thinking via the three domains. This project provides insight and perspective on how the discipline of critical thinking has evolved and moved to the forefront of health education and advances the area by bridging this operational definition to a framework that can guide instruction and assessment in dental education.

A COMPARISON OF RECENT CAD/CAM SYSTEMS: THEIR USE, THEIR LIMITATIONS, AND THEIR DIFFERENCES

Paul Zhivago, Igor Chikunov, Mijin Choi

The use of digital technologies in dentistry has expanded in the recent years. The selection of an appropriate digital unit is one of the most challenging aspects due to the unclear multitude of capabilities in different devices. The purpose of this table clinic is to provide comprehensive information on currently available digital units. The presented elements will compare software platforms, scanning technology, types of materials used, manufacturing methods and capabilities.

PREPARING STUDENTS TO SUCCESSFULLY DIAGNOSE THE EMERGENT DENTAL PATIENT

June Weiss, Bruce Brandolin, David Hershkowitz, Morey J. Gendler

It is extremely important for a dental student to develop the skills to effectively diagnose and treat the dental emergency patient. New York University College of Dentistry has developed a simplified approach to aid our dental students in the effective diagnosis and treatment of the emergency patient.
Our algorithmic approach to evaluating a dental emergency is a unique, simple, and effective training model. It encourages students to accurately diagnose and treat a dental emergency. The interactive model integrates clinical and didactic knowledge with the end result being predictable and accurate emergency dental care.

**E16**

**THE EFFECT OF DEDICATED COMPETENCY EXAMINATIONS IN LICENSING PASS RATES: A TWO YEAR COMPARISON**

Benjamin Godder

At New York University College of Dentistry (NYUCD) competencies are mandatory through the entire period of D1-D4 as a requirement towards graduation. During the year 2011/2012 the students were required to take five and three Operative competencies respectively. In the past this competencies were given during regular clinic hours by regular faculty as per the regular clinic hours. This format was moved to a separated hours 4 to 6 pm Monday through Thursday with designated and calibrated faculty. The poster is a graphic depiction of the number of competencies taken in reference to the success rate on the various licencies exams (NERB-WREB), as general observation the passing grade of the students during the licencies exams change dramatically close to and above the national average.

**E17**

**TEACHING DENTAL STUDENTS EVIDENCE BASED BEST PRACTICE THROUGH CASE SELECTION**

Peter Mychajliw

The intertwining of evidence based best practice protocol (EBBPP), (integration of best available research evidence, clinician experience, and patient desires), with state of the art dental materials and multi-faceted rehabilitation techniques through individualized EBBPP mentoring dental faculty pedagogics, can provide the dental student with critical thinking, technical and clinical life long professional learning tools. This process can be readily applied to any presenting patient’s chief concern, and is especially useful in the diagnosis and treatment (planning) of risk factor patients. A patient with a risk factor of diabetes type II is utilized to illustrate this concept. The purpose of this presentation is to highlight the application of evidence based best practice protocol in a dental school pre-doctoral clinical setting and how the use of a “clinical question and PICO format” in conjunction with a thorough comprehensive exam and patient’s chief concern satisfaction can propel the student forward into structured solutions options. It can also stimulate critical thinking, discussion and investigation into many circumstances in dentistry that may not have clear high level evidence support or conflicting data (such as aesthetic outcomes, medical-dental causal links, antibiotic premed protocols, etc).