



DENTAL AUXILIARY UTILIZATION: CREATING HANDS-ON CLINICAL EXPERIENCES FOR ALL STUDENTS

Through a restructuring of preclinical course and lab instruction, first- and second-year students are now working side-by-side with upperclassmen as they see patients.

BY JULIANA DELANY



Inside Penn Dental Medicine's Main Clinic, two students are focused intently on the patient in the dental chair before them. One is a fourth-year student performing a denture trial on her patient. The other is second-year student Matthew Ryskalczyk (D'13), who watches raptly, assisting when required.

Earlier in the week, Ryskalczyk studied the trial denture visit in class and practiced it in the lab. Now, faced with a real patient, all of the pieces begin to come together. "It was so helpful to see this procedure in clinic, because it put into practice the numerous aspects of the denture that need to be assessed, and it showed me clinically how these are measured, evaluated, and attained," he explains. "The mannequin in the lab can only show you so much and can't react to an uncomfortable or poorly fitting denture like a real patient can. Seeing it firsthand definitely enriched my understanding." Ryskalczyk is in the clinic as part of the School's newly introduced Dental Auxiliary Utilization (DAU) class, gaining clinical experience with patients much earlier than his predecessors at Penn Dental Medicine. In fact, this new addition to the curriculum will enable students to be in the clinic all four years of dental school — a step designed to enhance clinical education on myriad levels.

STUDENT VOICES ARE HEARD. Launched this academic year, the DAU component will bring both first- and second-year students into the clinic to assist upperclassmen under the guidance of clinical faculty. Historically, underclassmen worked exclusively in the classroom and preclinical lab, entering the clinical setting for the first time when they began treating patients in their third year. Now, students will be fully engaged in the clinic environment from the start of their dental education.

"In revamping the clinical schedule with the incorporation of DAU, we are not only making changes we feel important from an educational perspective, but also responding to feedback from our students," says Dr. Uri Hangorsky, Associate Dean for Academic Affairs. "Students come here with the ultimate goal of working in the clinic with patients, and we sensed some frustration on their part because for the first two years that was not happening. Instead of having them feel isolated in their preclinical work, we wanted to integrate them with the rest of the School."

Members of this year's second-year class started assisting in the clinic in August, joining primary care units (PCUs) with upper-class students and faculty. And in February, first-year students will be introduced into the PCUs as well.

BENEFITS FOR EVERYONE INVOLVED. First- and second-year students will benefit from the new program on many levels. Their revised schedule brings them into the clinic to assist with a procedure just days — or sometimes even hours — after learning the same skill in the lab, adding an invaluable hands-on component to their classroom and lab studies while the knowledge is still fresh in their minds.

By closely coordinating the material presented in the classroom with the procedures performed in the clinic — a scheduling challenge that took time and patience — students are getting the best of both worlds: an integrated, highly relevant curriculum, says Dr. Hangorsky.

Creating Hands-On Clinical Experiences for All Students

"In the clinic, students get to see the application of all the things they have just learned in the basic sciences, with a real-life perspective," he says. "The result is a more seamless and cohesive experience."

By learning the ropes of the clinic gradually, he adds, first- and second-year students will avoid the sudden transition into the clinic that third-year students have had in the past. By the time they reach their third year, the transition to performing clinical procedures on their own will be virtually seamless. At the same time, by assisting more experienced students, they are learning the critical communication and cooperation skills that every dentist must have. "By observing upperclassmen, we learn to evaluate and provide a treatment plan for each patient," says second-year student

CHARTING NEW TERRITORY. Incorporation of the DAU involved a complete review and consolidation of the preclinical courses and labs in order to make time in an already rigorous schedule for this clinical component. Because such a comprehensive DAU program (one involving students from all four years of study) doesn't exist at any other dental school, there were no models for Penn Dental Medicine administrators to follow. The team tasked with creating the new program included Dr. Hangorsky; Dr. Alan Atlas (D'86), Clinical Associate Professor of Restorative Dentistry; Dr. Najeed Saleh (D'94), Clinical Professor of Restorative Dentistry and Director of Comprehensive Care Clinics; Dr. Olivia Sheridan (D'90, GD'91), Clinical Associate Professor of Restorative Dentistry; Dr. Heywood Kotch



Johanna Palacio (D'13). "I know I will learn a lot this semester because I can correlate the material we learn in classes with my observations in the actual clinic."

The upper-class students benefit from the change as well. By demonstrating techniques and explaining procedures to the newcomers — a time-tested method of solidifying knowledge — they are honing their own skills. They will also graduate from Penn Dental Medicine with the knowledge and ability to practice four-handed dentistry, through the training and experience they have obtained working in DAU.

Through four-handed dentistry, patient care also can be enhanced, notes Dr. Hangorsky. "With more people to help with procedures, those procedures can be more efficiently delivered and more personal," he explains. "In addition, the third- and fourth-year students will be able to delegate some non-clinical duties to a first- or second-year assistant, and as a result, can have more time to focus on the patient."

(D'77), Managing Director of Clinical Operations; Dr. Markus Blatz, Professor and Chair of Preventive and Restorative Sciences; Dr. Raj Shah, Clinical Associate Professor of Restorative Dentistry; and preclinical course directors Dr. Margrit Maggio (D'87), Assistant Professor of Restorative Dentistry-Clinician Educator; Dr. Vicki Petropoulos, Associate Professor of Restorative Dentistry-Clinician Educator; Dr. Nathan Kobrin, Clinical Associate Professor of Restorative Dentistry; Dr. Joy Abt, Clinical Assistant Professor of Restorative Dentistry; and Dr. Kenneth Kent, Clinical Associate Professor of Restorative Dentistry. "There was a great deal of give and take," says Dr. Atlas. "It was a true team effort."

"It took a tremendous amount of communication to ensure that the students' needs were being met and the preclinical course and clinical components complemented one another," adds Dr. Sheridan, the DAU course developer with Dr. Kotch.

Creating Hands-On Clinical Experiences for All Students

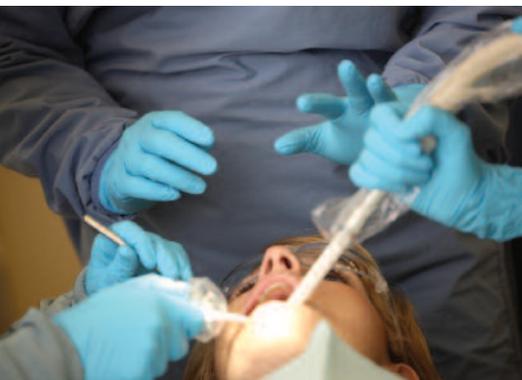
While the school had faith in their vision of the revamped program and its benefits, making such a significant alteration in a years-old schedule was challenging, notes Dr. Saleh.

"We were departing from something everyone was comfortable with and venturing into unknown territory," he recalls. "But, the course directors worked diligently to make sure that all of our questions were answered and concerns were addressed."

POSITIVE REACTIONS. Since its launch at the start of the 2010-2011 school year, the DAU component has been getting positive reviews from many students. "I was thrilled to know that we were going to have an opportunity to assist upperclassmen," says Johanna Palacio (D'13). "The majority of my classmates were as excited as I was."

In addition, from her perspective as Assistant Dean for Admissions, she says the change could have an impact on prospective students. "We can now say to students who are considering Penn Dental Medicine that they will be clinically involved for all four of their years here," something other schools can't say, she explains. (In a recent survey of U.S. and Canadian dental schools performed by Penn Dental Medicine, no other school reported such a high degree of clinical involvement.)

WORK IN PROGRESS. Though the initial results of the restructuring have been positive, members of the team are quick to stress that the program is a work in progress, one that will be monitored carefully to ensure that all of the needs of the students are being met and that educational quality has not been compromised in any way.



Second-year student Jeff Pace (D'13) agrees. "Interacting with patients has been my favorite part of being in the clinic so far," he says. "You can very easily get lost in your studies during the first two years of dental school. This new schedule allows you to experience what you are ultimately working toward, which is treating patients."

"I'll have much more confidence next year when I start treating patients as a third-year student than I would have under the old program," he adds.

Dr. Sheridan is excited about the opportunity the new program affords current and future Penn Dental Medicine students.

"As a whole, the learning process will now be much more complete and cohesive," she says. "We are working with these students from the ground up, teaching them the things they will use every day as dentists — things like appropriate ergonomics, practice management, and improved efficiency."

"We are developing a series of metrics to evaluate, objectively and tangibly, how both preclinical and clinical students are performing," says Dr. Saleh. These will include measurements of the productivity of third- and fourth-year students in the clinics to judge the impact of having an assistant, along with the development of metrics to monitor the impact on preclinical learning. In addition, student and faculty evaluations of the experience will also be conducted.

Dr. Atlas believes the increased clinic time will benefit many future generations of Penn Dental Medicine students, as well as their patients. "There is nothing that can take the place of hands-on experience with a patient in learning to be a good dentist," he adds.

For Matthew Ryskalczyk, that experience has already begun to pay off. "I learn from the mistakes and triumphs of the students around me," he explains. "By observing and assisting them now, I'll make fewer mistakes when I enter the clinical setting officially as a student dentist next year." **PDJ**