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U.S. dental programs embrace international education experiences and receive far more benefits than they anticipated.

BY KIM FERNANDEZ

All Smiles



Mike Maughan, who graduated from the University of Louisiana School of Dentistry in May, says after four years of pretty intense education, clinicals, exams, and experiences, two weeks probably changed the course of his career.

“It really instilled a spirit of giving,” he says. “You see these kids and the happiness in their eyes when they’re about to be rid of pain and different things, and it opens your eyes. Now, I want to go into dentistry not just as a business, but also to serve people.”

Maughan visited the Philippines twice during dental school through the university’s International Service Learning Program (ISLP)—once in 2012 and once in 2013—and despite having spent three years in the country on a previous service mission, says his dental school experiences will stick with him for a long time.

“We formed relationships the first time and it was like coming home the second trip,” he says. He and a group of students and instructors spent the week working in schools, helping children with dental issues ranging from cavities to rot to massive infections. And while it was difficult, to be sure, Maughan says he’d jump at the chance to do it again. “The experience made me want to take more trips like those,” he says. “I realized I have a lot I can give, and there are a lot of ways I can help. It was a completely different, eye-opening experience, and it makes you realize how much you have.”

Maughan is one of a growing number of dental students who spend part of their educational career abroad, either in formal exchange programs focused on classroom



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education, or hands-on during service missions in areas that don't see much formal dental treatment otherwise.

While dentistry isn't traditionally an area that's seen a lot of study abroad, administrators say international experience is growing in importance in the field. That's partially because dentists, like many healthcare professionals in the United States, will work with many people from many other cultures depending on where they practice, and a study or work-abroad experience offers them a foundation for that sort of work. And it's partially a shift toward global thinking among Millennial Generation members that's forcing the change; the current generation of students has never felt bound by formal country barriers and demands the opportunity to study or work abroad in a formal program before graduating.

The benefits, they say, are countless, ranging from hands-on experience in situations not offered during traditional clinical rotations, to a commitment to do good with one's career rather than counting dollars and days until retirement.

Going Away

The University of Louisville's ISLP program launched around 1997 with a trip to Barbados, says Clinical Associate Professor and Director of Quality Assurance and Accountability Paula Collins, DMD. It's a multidisciplinary program that includes dentistry along with medical, nursing, justice administration, engineering, civic leadership, and students and faculty from departments all over campus. That diversity, she says, adds to the program in concrete ways.

"So many things make this unique," says Collins. "They work together with disciplines outside of medicine, up to and including social issues and problems. The dental component is just one aspect, but they have to work with other disciplines in other clinics."

Children in Bolivia who were treated by Shoreline Community College dental hygiene students hold up their new toothbrushes.



PHOTOS THIS SPREAD: MARYROSE BELLERT/SHORELINE COMMUNITY COLLEGE



Rosie Bellert, dental hygiene director at Shoreline Community College, examines a child at Morochata grade school in Bolivia. The little girl gave her a hug after the exam.

Alex Vasserman, DMD, in Poptun, Guatemala, in January 2012 when he was in his fourth year of dental school at Boston University. He graduated with DMD in May 2012.



ISLP students spend a week or two in different locations around the world, including the Philippines, Croatia, Belize, Botswana, and Trinidad, among others; not all locations incorporate dental work. Locations are chosen carefully, she says, based on what students can offer local residents, and what they might learn along the way.

“We make sure our students will go there and learn more than service,” she explains. “They’re also learning the culture and the history and getting an understanding about people who are entirely different than they are.”

Students who are selected for an international experience spend six weeks preparing in weekly sessions, and they work on a project as an interdisciplinary team, such as a water purification or similar project. “All of the students going from all the disciplines have to participate and learn about it and help out with it,” says Collins, who normally takes six dental students on each appropriate trip. Four of those work in a dental clinic every day and two rotate to other projects, so everyone takes turns at everything.

In the Philippines, students visit a clinic set up in a school in an area where routine dental care is too expensive and hard to get for most people. “The people there are so grateful for what we do that they built a little room in the school for us,” she says. Dental equipment is stored there between ISLP visits, repaired as needed, and set up to work every year. Students from other schools in the area are bused in for exams and treatments.

“They have a lot of absenteeism in schools because of toothaches, infections, and cavities,” says Collins. “When the program started in 2012, the principal told us absenteeism went down 50 percent. That’s amazing.”

Other schools say their programs have boasted similar results. Michelle Henshaw, associate dean for global and population health at Boston University’s Goldman School of Dental Medicine, says dental students travel abroad up to three times per year, both giving and getting great benefits.

“We look for the ability to provide preventive care,” she says. “If we can do preventive care throughout the year, there will clearly be fewer treatment needs in the future. That’s our focus.”

Boston University students can choose between six and twelve different trips depending on the year, and spend one to two weeks abroad, offering dental services and exploring the countries they’re visiting.

“They go in their fourth year and with an experienced dentist,” she says. “They have enough skills to almost work at the level of the practicing dentist. They’ll be a little slower, but they go at a point when they’ll be dentists in the next couple of months.”

The students focus on Central America, and Henshaw says people will walk up to six hours to wait in line for their services. “They’re there at three in the morning before the sun comes up, waiting for their chance to have dental care,” she says. “Sometimes there are hundreds and hundreds of people waiting. We’re never going to get to see everyone, and it can be heart-wrenching to send them away if we can’t see them.”

But that, she says, is among the experiences that can be life-altering to young dentists. “Some of my favorite pictures students bring back are series that start with the outgoing, energetic faces at the beginning of the day,” she says. “Then you see them at the end of the day and they’re laying on the ground with their heads in their arms, hav-



ing given everything they could give in a 10-hour day. They just have nothing left to give. That’s life-changing.”

The proof, she says, is in what happens after graduation, when about half of the students who participated in an international experience through the school continue to be involved in missions abroad—many come back to the university and go again as trip leaders.

“We do an orientation for them before each trip that makes sure they’ve covered everything in terms of immunizations, and we try and prepare them emotionally and mentally for some of the things they’re going to experience—the exhaustion and the heartbreak of having to stop when there are so many people in need. They can at least start to orient themselves to that.”

The results, she says, are wide-reaching. “I really think it has little to do with the clinical experience,” she says. “It’s having a broader understanding of and appreciation of our world and the different cultures and different experiences of people and the way they live that’s most important.”

That’s particularly important in dentistry, she says, which is a field often misunderstood in healthcare.

Boston University dental students and alumnae on their trip to Poptun, Guatemala, in January 2014. Pictured are Christina Donnelly (DMD 2013), Ella Botchevar (DMD 2014), Kevin Acone (DMD 2007/team leader), Wyatt Traina (DMD 2014), Theresa Guanci (DMD 2014) and David Zeigler (DMD 2014).

“The comments I hear most often are somebody saying they left the U.S. as dental students or dentists and came back as healthcare providers,” she says. “They have a broader perspective of how dentistry fits into overall health and how it affects the quality of life of people. It changes the way they see their profession, but it also changes the way they see their role in the community here. It changes their view of what’s important, both personally and professionally, and it doesn’t take them actually graduating and opening their own practice to realize that and make that shift. It happens immediately.”

It also, she says, deepens their relationships with their colleagues.

“There’s a level of bonding that happens between students on the trip that’s not just the way they think as related to the clinical work they’re doing,” she says. “It’s a more foundational issue. This is an experience that’s unlike

anything else they’ve shared. We do hear from students later that they understand they can do dentistry where conditions are less than ideal and sometimes they gained that confidence on these trips. They know they can do dentistry anywhere. If something happens or an instrument breaks, they know how to deal with that. They’re more adaptable as a result.”

Making It Sustainable

One of the newer initiatives in overseas dental student experiences is moving past simple trips to treat cavities and infections, and toward establishing permanent programs that will improve dental health in an area even when a U.S. school isn’t on the ground there. That’s what’s happening at the Colorado School of Dental Medicine, where Director of Global Health Initiatives and Assistant Professor of

Mount Ida College dental hygiene students travel to Ecuador. Each child received a toothbrush and toothpaste, and students assisted them with learning proper brushing techniques.





Mount Ida College dental hygiene students taught proper oral hygiene instructions when they visited an elementary school in Quito, Ecuador. Students scored the children's oral hygiene index by using a pink disclosing solution. The dye in the solution turned the plaque on their teeth pink to allow the children to visually see where they needed to improve their brushing. The children loved the whole process and giggled at their pink teeth.

Pediatric Dentistry Elizabeth Shick says a huge draw is establishing a sustainable, ongoing program.

"We're moving away from the old dental mindset where you go somewhere for a week or two, pull 300 teeth, and go home," she says. "That doesn't really help solve overriding oral health issues."

In its place, she says, her school is working with a large company in Guatemala to open a permanent dental clinic in an area near large banana plantations, where workers are impoverished and need regular care. Shick says the community is made up of 30,000 people with no access to dental or medical care.

"We'll make the first trip this summer," she says. "We can do fillings and restorative work, keep electronic records, and go multiple times a year with dental students and faculty members." She hopes to provide comprehensive dental care with a twist: also providing training to local nurses. The medical side of the clinic, she says, is already open and includes a birthing center that will also offer midwife training from visiting physicians and trained experts.

"We're planning to start with four trips per year, about every three months, at least," she says. "It's a start. We're hoping to go more often as time goes on, but that's how we're starting." A planned needs assessment this June is being followed by the inaugural student trip in July; that trip will include eight fourth-year students and one faculty member. Because there isn't funding for these trips, meaning students have to pay their own way, they're offered as elective courses, which allows student loan funds to be

used. She hopes a quarter to half of the dental class will eventually participate every year.

"One trip a year isn't what we were looking for," she says. "We want something sustainable to provide consistent care for the people in that country. If you have a lot of dental decay, which they do, not all of your needs can be met once a year."

That's the feeling also of Rosie Bellert, dental hygiene director at Shoreline Community College in Shoreline, Washington, which sends dental hygienist students to Bolivia to both work on teeth and help train local residents to be dental professionals. Working through Smiles Forever, a nonprofit that works in that area, Bellert has been to the country twice with students.

"We took students down there to help with teaching and help with community service projects," she says. "Kids there have abscesses, gingivitis, issues with their dental tissues that deter healing in the whole body." They also visit orphanages to clean teeth; many of the children have never experienced that before. "We went to one village and brought three oral surgeons and one dentist with us," she says. "Working with portable chairs, they saw 56 kids between the ages of six and 18, and extracted 150 teeth that were abscessed and needed to be extracted. The kids just hung around—they wouldn't leave. They really wanted those teeth that had been bothering them out, and they knew the dentists wouldn't be back for six months or a year."

"Another issue in Bolivia is that there are no hygienists traditionally, so we're kind of pioneering that," she says. "Training dentists on how to use hygienists is pretty difficult. So we explained continuing education and explained how to use them to clean teeth, and helped get them hired afterwards. After 10 or 12 years [since Smiles Forever started working], we're starting to come to the point where dentists know hygienists are well-trained and can be trusted. They're starting to get hired more quickly as dentists understand that they can increase production by cleaning people's teeth."

Bellert's first trip to Bolivia in 2011 was a partnership between Shoreline College and several other hygienist programs in Washington. "It was kind of cool to have different schools represented on that trip," she says. They stayed in a dorm-like building with a house mother and immersed themselves in the culture, taking particular care to eat local foods.

Students receive three credits for the trip, which is offered as an elective. Bellert has applied for funding for a 2015 trip, and says she'd like to take nursing students along with her hygienist students. "There's so much opportunity," she says.

Motivation

“This is definitely a growing area,” says Shick. “Most dental schools have some kind of global health component in the curriculum. Everyone does it a different way.”

Part of the reason for that, experts say, is that students are demanding some kind of international experience as part of their educations. It is, they say, a generational issue.

“The new generation we’re teaching is very global,” Shick says. “They’re really connected. They’ve traveled more as undergraduate students than my generation did. They have a global mindset.” She says dentistry is following in the footsteps of medical education—and rightfully so.

Karen West, dean of the School of Dental Medicine at the University of Nevada, Las Vegas, agrees. “Think about the Internet,” she says. “I just got back from visiting Russia where my daughter is studying in St. Petersburg. We talk every day thanks to texting. With this generation, there aren’t any barriers. There are no walls for travel or experiences or anything.”

UNLV has hosted several dental faculty from China for six- to 10-week visits and is in the process of setting up a system to send its students to that country in exchange. The school has adopted a strong commitment to service, and West says that was quite intentional.

“I like to say that our students get a good academic education here and learn to provide excellent clinical care, but they also graduate with a service orientation and a professional approach to dental care,” she says. “I want them, when they graduate, to become leaders in the dental profession and in giving back to their communities. I want them to graduate with this mentality that they might not have had coming in.”



In Ecuador, one Mount Ida College student dressed as a tooth fairy and gave children mini tooth necklaces and stickers. Students used the tooth fairy costume to attract the attention of the children when teaching correct oral hygiene. The tooth fairy also served as a great visual aid to allow children to feel comfortable and have fun.

Henshaw says that’s an attitude her students return from trips with. “Our students come back talking about the amazing gratitude of the people they see and treat,” she says. “It’s unlike anything they experience here, where it’s a right to have medical care. There, it isn’t. It’s inaccessible.”

She’s spent some time abroad training healthcare professionals in Central America to do things such as apply varnishes that help protect children’s teeth, bearing in mind that not all of them even have access to something as simple as a toothbrush.

“We are working with ministries of health to integrate varnish into pediatric visits,” she says. “We’re training physicians and nurses how to do those things.”

She, too, says students are clamoring for international education and experiences. “It’s student driven,” she says. “Students come here asking for this and demanding it as part of their educational experience. I’m not sure many

Mount Ida College students visited a local school in Quito, Ecuador. They brought puppets with teeth as visual aids. The children loved the puppets and all individually demonstrated correct brushing on the puppets.





COURTESY OF MICHAEL KOWOLIK

Michael Kowolik was invited to give a speech at the Jordan University of Science and Technology in spring 2014 in the city of Irbid, Jordan. Here, he is shown with dental students from that university—all of them are Jordanian, except one from Somalia.

of them really understood what it meant, though. Many had volunteered as undergraduates, but not in a health-care program—they were more general relief programs or missions. They wanted to have that experience in dental school as well. The experience is very different, and I don't know that any of them really anticipated that difference."

Jacyn Stultz, dental hygiene department chair at Mount Ida College in Boston, took a group of five hygienist students to Ecuador earlier this year for the first time. Ecuador has no such thing as a hygienist, and this was the first visit of its kind. Stultz and her students knew very little about what they were going to face when they arrived, but she says it was an amazing experience for everyone.

"It was very humbling and very rewarding," she says. "They emailed me afterwards and said they all want to go back. They all want to try and return there to do more."

Stultz's students stayed in a private home and spent time teaching young mothers how to care for their babies' teeth, working with senior citizens on basic dental care, and visiting schools to distribute toothbrushes and toothpaste and talk about dental hygiene.

"Six out of 10 mothers there are teenagers," Stultz says. "The teen mothers brought their babies in and let us look in the babies' mouths so we could teach them how to take care of the baby teeth. After awhile, one by one, the mothers let us look in their [own] mouths—they had never had

anyone look at their teeth before. They had abscesses and broken teeth, and they were nursing babies."

"We were going from 7 in the morning until 7 at night," she says of the trip. "We had a cultural lecture and Spanish class every day as well. It was exhausting." But they also fit in some sightseeing and other activities, and she says the experience was educational to say the least.

"This kind of experience offers a great appreciation for cultural diversity," she says. "It lets students look at oral health in a global manner and see how it affects a culture. In some countries, they don't teach preventive dentistry because they think it'll take away from their job. They don't understand that it would enhance their job and make their job stronger. And even in a poor country, preventive dentistry can be pretty cost-effective. That knowledge isn't out there."

For their part, she says, students proved to be troopers. "As far as really knowing what kinds of settings we were walking into and what it would be like, this was a true adventure," she says. "It was an adventure, and the students were willing to go for it. They were really great. We had to dive in headfirst, and they were prepared for that. It was a life-altering experience—the experience of a lifetime."

And, she says, it was an experience that might change the way some of her students go on to work.

"This will, I hope, make them better professionals," she says. "It's not just church groups doing these trips anymore. This is increasingly part of business."

International Priorities

Michael Kowolik, associate dean for graduate education and professor and director of graduate research at Indiana University School of Dentistry, says international education goes two ways at his university, with students traveling to Indiana from other countries and vice versa.

“We started a program for international students who already have a dental degree from another country but do not have qualifications to practice in the U.S.” he says. While there are several universities with similar programs, most only accept students who are U.S. citizens. Indiana University will accept green card holders, and in some cases, overseas applicants as well.

“For the most part, these are people already domiciled in the U.S.,” he says, explaining that the typical student is a dentist from another country whose spouse is working in the United States. “The dentist comes here only to discover he or she can’t practice here,” he says. “They’re looking for those qualifications.” And looking, he says, in large numbers. “We get a lot of applicants.”

But the university is looking to expand its globally focused options for students and reaching out to establish programs in other countries as well. Any program has to meet three criteria: it has to have scholarly value, it has to work politically, and it has to make financial sense. “The combination of all three,” he says, “becomes the driver.” And any program has to be reciprocal.

“When I was a dental student on the other side of the Atlantic,” says Kowolik, who’s originally from England, “the books we read were written at Indiana University, which was probably one of the preeminent dental schools in the world. They were writing the textbooks everybody else was reading. There is a tremendous tradition at this school, and that attracts foreign graduate students. But at the same time, it can lead to a sense of security. We need to be ahead—as our dean says, ‘If you’re not moving forward, you’re standing still, which really means you’re going backwards.’”

Having students from so many countries also presents its challenges, he says. “Some years ago when the Gaddafi regime fell in Libya, we had several students here,” he says. “Because of the skirmish, the banks shut and nobody was paying their fees, and students pay hefty fees here. We had to make accommodations for that.”

There was more, too. “The financial side was way out of their control, and at the same time, they had personal concerns—family members who might have been in big trouble. We had a student who had a family member killed. These things come up and bring with them whole new sets of issues.”

As a result, he says, the students have developed a very strong support network of their own that helps get new students assimilated, but also offers benefits when things go awry later.

“We get students who come from China and who have never been outside of their tiny village in rural China,” he says. “They’re brilliant young people, but they come to the center of Indianapolis and they’re completely homesick and can’t find any food they like, and it takes time to get adjusted. These are things you don’t have to deal with when you focus on domestic students. All of these human things come with the academic things.”

That, he says, is actually a benefit to the U.S. students at the university as well.

“We are talking about people who were at the top of their class at home—bright, well-educated, and understanding the way things are and how to adapt,” he says. “They have very few problems that can’t be resolved. In the end, our American students learn a lot from them, especially those who have very little experience outside this country. It helps deal with some inherited prejudices.”

For their part, U.S. students who’ve traveled as part of their dental studies say the experience can’t be matched any other way.

“We stayed in what was basically a treehouse,” says Wyatt Traina, a fourth-year dental student at Boston University who traveled to Guatemala last January. “It was very basic—we had no hot water except electric heaters on the showerheads and we had to troubleshoot equipment when it broke down.”

He says parts were hard, especially turning people away at the end of the day. “It’s not easy,” he says. “But at the same time, you have to realize you’re doing what you can and the best you can. You have to work through it.”

Traina says he definitely wants to do more work overseas after he finishes a three-year residency in San Francisco after graduation this year. “It was very fulfilling,” he says. And it presented a crash course in cultural literacy.

“I don’t speak Spanish,” he says. “But after a few days, I’d learned the important words that were necessary to do the work. It was a great learning experience. But there were times that were difficult—kids would be crying and we couldn’t reason with them because we didn’t speak Spanish. We had to figure out how to work through it.” **IE**

KIM FERNANDEZ is a freelance writer in Bethesda, Maryland. She also wrote “Alternative Solutions” in the international enrollment supplement in this issue. Her last article for *IE* was “New Tools of the Trade” for the intensive language supplement in the March/April 2013 issue.