Crisis: The Shortage of Prosthetists

by Nancy Carroll

Here's a sobering thought: It is forecasted that by the year 2020 there will be a 47 percent increase in the amputee population, and due to a shortage of prosthetists, only 68 percent of those in need of prosthetic care will have access to a formally trained prosthetist. Today, there are approximately 3,300 prosthetists in the United States, and 55 is the median age. This means that in 10 years, more than half in the field will be retiring.

Statistics also show that America is aging and demands on healthcare are ever increasing. Government reports state that approximately 7.4 million Americans use assistive devices to accommodate mobility impairments - a number that continues to grow annually as the incidence of diseases such as peripheral vascular disease and diabetes increases.

So why are there so few prosthetists to meet this demand? Programs accredited by the Commission on Accreditation of Allied Health Education Programs report less than 200 graduates each year. And many schools that offer O&P degree programs, such as Rutgers University in New Jersey, are closing their doors due to lack of government funding.

"The profession is in a crisis," says J. Michael Wheatley, PhD, a prosthetist, orthotist and pedorthist at MHC Orthotics & Prosthetics LLC of Leonardtown, Maryland.

"Historically, the O&P field has had the biggest growth spurts after a major war, such as World War I, World War II and the Vietnam War. But since modern warfare doesn't use as many ground troops, there are fewer amputations, so the government doesn't see the need to fund our education anymore. That's why a lot of these schools are starting to close down, because they have lost their funding."

Another reason for the shortage of prosthetic professionals, Wheatley says, is that young people are not going into the field. Why? "There's not a lot of public awareness about prosthetics and orthotics," he explains. "Unless someone in your family has needed a brace or an artificial limb, it's an unfamiliar career field."

Other factors include the years of education required to become a prosthetist.

(L to R) R.L. "Buddy" Grayson, PhD, CPO; J. Michael Wheatley, PhD; Gary W. Chasles, BOCP, RTO

Citing his own experience, Wheatley says that after four years of undergraduate work and a two-year graduate certificate, he had to complete a two-year residency to be eligible to sit for the board certification exam.

"In the last decade, kids have been wrapped up in computer technology. Why should they go into a field that takes all this education when with a 2- or 4-year degree they can get into computers and make a lot more money in less time?"

Great Career for Amputees

While education is an important element in producing a qualified prosthetist, on-the-job training is also effective, says Gary Chasles, BOCP, RTO. Chasles, a right below-knee amputee since a motorcycle accident in 1980, learned the business from the ground up. "After my accident, I had numerous surgeries on my right foot and needed a pair of custom-made boots because my foot was so bad," he says. "A prosthetist made the boot for me and I ended up hanging out at his laboratory watching him build braces. Since I was a carpenter for many years, he gave me a job at the lab working on a pair of crutches."

Today, Chasles is a certified registered orthotic technician (RTO) and a Board for Orthotist/Prosthetist Certification (BOC) certified prosthetist. He joined Wheatley and R.L. "Buddy" Grayson, PhD, CPO, at MHC O&P this year after 12 years of on-the-job training. Wheatley and Grayson, who are certified by both The American Board for Certification in Orthotics & Prosthetics (ABC) and BOC, believe that both certifying agencies, despite differences in educational requirements, play a vital role in helping to offset the current prosthetist shortage.

"There's a place for both agencies. School provides a lot of things, but so does hands-on experience," Wheatley says. "Just because a practitioner has more formal education doesn't make him or her a better prosthetist. Caring and dedication to the craft make a good prosthetist."

Chasles, now 48, was married with children when his amputation occurred. "Being a little older, and having to support a family, I really didn't want to go back to college and start all over," he admits. "By incorporating my life experience with what I was learning in the laboratory, I created an alternate pathway to a career in prosthetics. With the current shortage of practitioners, there's a definite need for this approach. Plus, that's how it was 20 years ago. People learned by doing and gaining experience; there were minimal educational requirements."

Wheatley and Grayson agree that having an amputee on staff is a definite advantage to their practice. "Buddy and I have been in the field for years and we can help people, but we can't walk in their shoes," Wheatley says. "Gary, being an amputee, will say, 'I had that problem six months ago, and this is what I did.' This firsthand advice is a tremendous advantage for all of us."

State Licensure Needed

One of the major frustrations for today's certified prosthetists is that many states still have no licensing requirements, adds

Wheatley. "For example, the State of Virginia doesn't require a license, certification or formal education, so anyone can hang out a shingle and call themselves a prosthetist. That's scary.

"In many states you have uncertified, inexperienced people doing what has taken me eight years of schooling and more than 18 years in practice to do," he continues. "Can you imagine allowing someone to put a device on your leg who is inexperienced? In every state you have to have a license to be a beautician or a barber, but not to be a prosthetist. It's ludicrous."

Educating the Consumer

Additional frustrations include patients who go to a prosthetist simply because their doctor recommends him or her. "Look in the telephone book and you'll see hundreds of orthopedic physicians and just a few prosthetists," says Wheatley. "People need to know that they have choices. They need to be educated so they can ask the right questions."

Important questions include: "Where did you go to school?" "How long have you been doing this?" "Are you licensed?" "Are you certified?" "How many patients do you see in a week?" "How many artificial limbs do you fabricate in a month?"

And, most of all, you want a prosthetist who is sensitive to your emotional needs. "Limb loss is a very traumatic experience," says Chasles. "Sometimes a patient just needs a shoulder to cry on. That's why compassion and understanding are so important."

"Sometimes team professionals get so caught up in talking to each other, they forget to talk to the patient," Wheatley says. "They start to treat the patient as an object, not as the most important member of the healthcare team. It's important not to become so clinical that the emotional needs of the patient are overlooked. The patient must always come first."

Portrait of a Prosthetist

Education, certification, experience and licensure are only part of what it takes to make a good prosthetist. The prosthetist is an artisan, a skilled craftsman, an individual who cares about people and is willing to spend his or her entire professional life in pursuit of knowledge.

The prosthetist needs mechanical and engineering knowledge to fabricate a prosthesis and knowledge of anatomy and physiology to understand how the appliance will interface with the patient's body and meet his or her lifestyle goals and requirements.

Since the profession is constantly evolving, and new technological advances are being made, it is not an ideal career for people in search of a comfortable routine. And there are many other fields in which you could make a lot more money with far less effort and commitment.

But if you're looking for a profession that offers new challenges and opportunities for learning, and the personal satisfaction and fulfillment that comes from helping others attain a better life, then a prosthetic career may be for you.

As Wheatley puts it, "We're in this field for the long run. We love this profession, and we're here for our patients. My 21-year-old daughter just graduated with a biology degree and is enrolled in the Century College O&P Program. And my 14-year-old son recently told me, 'Dad, I'm going to walk in your footsteps.' What more could I want?" ■

Careers in Prosthetics

Prosthetist

Prosthetists work closely with the physician, surgeon, and therapist to provide total rehabilitation services for patients with disabling conditions. They are responsible for taking measures or molds, designing the appliance, selecting materials, fabricating, and fitting. Their goal is maximum patient comfort and function. At least one preliminary fitting enables the prosthetist to make needed changes before finishing the prosthesis. The final step is an evaluation of the patient's appliance by the prosthetists and other rehabilitation specialists. The physical therapist and occupational therapist help the patient learn to use this new equipment.

Salaries

According to the American Orthotic & Prosthetic Association (AOPA), prosthetists earned from $30,000 to $65,000 in 2000. With more experience comes higher pay – as much as $100,000 a year.

Salary ranges are determined by region and experience. Because of the shortage of prosthetists, incomes are usually higher in rural areas.

Credentials

To obtain credentials as a prosthetist, a student must earn a bachelor's degree, complete specialized prosthetic training, and complete 1,900 hours of clinical experience in an accredited facility. The individual is then eligible to sit for the national board examinations and become certified by a certifying agency.

Prosthetic Assistant and Technician

The prosthetic assistant works under the direct supervision of the prosthetists and shares the responsibilities. The assistant may also be assigned repair and maintenance work.

The prosthetic technician is involved mainly in the fabrication of components and devices and does not have direct contact with patients.

Job Settings

Privately owned facilities, hospital laboratories, rehabilitation centers, and government agencies such as the Veterans Administration. In small organizations, the same person may fabricate and fit limbs. In larger facilities a skilled prosthetists may employ one or more assistants and technicians to do the actual construction work under supervision. The prosthetist then specializes chiefly in adjustment and fitting.

Salaries

The average wage for all technicians at all levels of experience is $12.20 per hour. The inexperienced technician in an entry-level position earns $8-$9 per hour. Technicians with several years experience can earn as much as $20 per hour. The most significant factor influencing salary level is certification. Technicians who have received their certification average $3 more per hour than those who are not certified.

Credentials

A graduate of a technical program is eligible to become a registered technician upon successful completion of the technical examination.

Contact Information

To learn more about these career fields in prosthetics contact:

The American Board for Certification in Orthotics & Prosthetics (ABC)
330 John Carlyle Street, Suite 210
Alexandria, VA 22314
703/836-7114 – www.opoffice.org/abc

Board for Orthotist/Prosthetist Certification (BOC)
506 W. Fayette Street
Century Building, 2nd floor
Baltimore, MD 21201
410/539-3910 – www.bocusa.org

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Prosthetic-Orthotic Center
345 E. Superior Street, Room 1723
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www.sfcc.spokane.cc.wa.us