

Practicing Medicine Is About More Than Standing on Your Own 2 Feet Karen M. Estrine, DO

As an emergency physician, I do a lot of scurrying around. It had never occurred to me that anyone with a physical disability could do what I do. But then I met 3 people—LeAnn Sagmeister (née Shannon), a second-year medical student with paraplegia; Jaffer Odeh, MD, an anesthesiologist and critical care physician with quadriplegia; and Derek Avilez, a firefighter and paramedic with quadriplegia—and through them, I have learned a new mobility.

When I moved to Miami, after completing my emergency medicine residency in Detroit, I chose not only to work clinically in the emergency department but also to teach students and residents at the Florida International University Herbert Wertheim College of Medicine. In 2011, a wonderful opportunity presented itself when I was asked to be a mentor for the class of 2015. That was when I met Ms Sagmeister.

As we were arranging our first mentor session at a coffee shop, I asked how I would recognize her. I was surprised by her answer: "You can't miss me. I'm in a wheelchair." As she spoke about adapting to paraplegia and medical school, I realized that my assumptions about mobility and its relationship to medicine were quickly dissolving. That day, our roles as mentor and student flipped, and I saw her as a mentor in strength and determination.

Ms Sagmeister's story was not one I expected. She told of how her mother had severe postpartum depression. "When I was napping at age 3 months, my mom shot me in the back. I was rushed to Shands Children's Hospital in Jacksonville, Florida, for emergent treatment. They saved my life, but my lower spinal cord suffered a complete transection

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at T12, and I have not moved my legs since."

Ms Sagmeister may have lost the use of her legs, but her arms soon set her on her way, from crawling to sitting up to getting herself into her first wheelchair. Her physical therapist, recognizing something unique in her strength and tenacity, suggested a path that would take her further than she had ever imagined: competitive wheelchair racing. She and her parents, who were very active in her recuperation, never looked back.

"My father was a mechanic and built my first racing chair. It had 4 wheels, not 3 like the racing chairs common today." By age 7, Ms Sagmeister was garnering sponsorships from wheelchair racing companies. In 1996, at age 13, she raced in the Atlanta Olympics. At that time, she was the youngest US track athlete in Olympic and Paralympic history—and the youngest in any sport to win a gold medal.¹ She moved on to the 1998 International Paraplegic Games and won other competitions in Florida, including 15K races. Along the way, she said, "I have been featured on ESPN, Eurosport, and multiple other news shows, magazines, and newspapers."

I was impressed not just by her accomplishments, but also by how humble she sounded. I asked what happened next. Ms Sagmeister subsequently attended Duke University but withdrew when she contracted an infection caused by her paraplegia. She said, "I felt it was best to be treated in Florida, so I finished my college education at the University of Florida and was later accepted to Florida International University Herbert Wertheim College of Medicine."

We had come full circle, back to medical school, back to something I could advise her about. Personally knowing how cramped emergency rooms can be, I asked how she navigates the logistical obstacles. "Since I cannot stand, I am thankful that the height of the beds adjusts for my stature, allowing me to examine patients. With my training in racing, speed is no object for me, and my wheelchair is specially made to fit into smaller spaces." Because of these factors, she says, "there is no difference between me and anyone else."

Is something on your mind? Visit the JAOA's "Information for Authors" at http://www.jaoa.org /misc/ifora.xhtml for information on submitting to "In Your Words." Manuscripts should be submitted at http://mc04.manuscriptcentral.com/jaoa. Yes, she acknowledges, patients are surprised to see a medical student in a wheelchair. "You can be startled that a doctor can look like a patient." They soon discover, however, that her considerable bedside manner and intellect carry her light years. Reflecting on the doubts that other physicians have expressed about her, she retorts that the medical world "overemphasizes the use of legs."

Dr Jaffer Odeh, too, has faced skepticism during his medical training. "It has been a lengthy road proving myself to others," he said during a telephone conversation we had in the winter of 2012. (He met Ms Sagmeister on The Student Doctor Forum [http: //forums.studentdoctor.net/], where she is a moderator.) His quadriplegia, which occurred at age 17 when he was in a car accident, was a "topic of interest" in medical school, where he felt mostly support from his peers and advisers. Yet, he said, "Two professors never believed in me and actually discouraged me from choosing my specialty. After so many of my accomplishments throughout medical school, they were still not convinced I could reach my goals, even after I was accepted into an anesthesiology residency."

He remembers the years he spent running and playing sports and how abruptly they halted. "One week before I graduated from high school, in 1999, I fell asleep driving my car in the middle of the day and hit a tree. Ironically, at the time I was an EMT [emergency medical technician], and the emergency department where I worked rescued me from being trapped in my car that day. I was placed on a Survival Flight to the University of Michigan [U of M], and I was found to have an incomplete injury to my cervical spinal cord at C6-C7. I underwent surgery to fuse my cervical spine at the level of the injury and stayed in the hospital for 4 months. I was released 1 day before I started as a freshman at U of M." In other words, he said, "Nothing would stop me from attending class."

The willpower that returned him to class that day carried him through his years of rigorous medical training, which took place alongside physical therapy. "Most of my upper body strength returned rather quickly in a few weeks, much faster than my lower extremities. My ability to regain function of my extremities and trunk plateaued after about 2 years. Today, I can take a few steps with assistance, but I stay in my wheelchair 99.9% of the time." After undergraduate studies and medical school at U of M, he completed his anesthesiology residency and critical care fellowship at the Cleveland Clinic in Ohio. He recently accepted a position as an attending physician.

Knowing the dexterity and agility involved with critical care and anesthesiology, I asked him how much function he has in his extremities. "I am considered a quadriplegic secondary to the level of my cervical spine injury, but looking at me, you would think I'm only a paraplegic," he says "I have some mild weakness in my hands, but it has not caused any problems in treating my patients in the operating room or the intensive care units."

His accident forced him to find a new way to solve problems. "It's all about preparation. As long as everything is set up and ready, I do not have to move my legs much at all for any procedure." For work, Dr Odeh alternates between 2 wheelchairs pneumatic and hydraulic—which he chooses on the basis of needing to stand to intubate patients or to perform other procedures. Remembering what it was like to be a patient himself, he adds, "I have learned empathy for patients." He knows firsthand "what it is to wait hours for a doctor to stop by the room" and, within a huddle of medical students, residents, and attending physicians, "be put on display during rounds."

As I spoke with Dr Odeh, I was reminded of another person closer to home in Miami: Derek Avilez, whose spinal injury inspired widespread community support. A well-regarded firefighter and paramedic, he had an open-water skimboarding accident in 2010, sustaining a cervical fracture at C1-C2. Although I was not covering the trauma section of the emergency department at the time of his care I felt connected to him because before the accident, he frequently delivered patients to our emergency department. For many months, in solidarity with his family and my colleagues, I wore a red rubber bracelet with "Derek Avilez" and "Recovery" stamped on it. "Prayers for Derek Avilez," a Facebook page created by his wife, has more 3000 "likes" and even more followers.

After speaking with Dr Odeh, I decided to reach out to Mr Avilez and obtained his phone number from a mutual paramedic friend. (Weeks earlier, by chance, I turned on the evening news and watched Mr Avilez ambulate with a walker back into the fire department where he had worked before his accident.) I asked Mr Avilez how his recovery was going. He had just been discharged home after surgery for cervical fusion and weeks in the hospital. He said, "The doctors told me that I defied odds by being able to just breathe on my own again. They are impressed with my progress after 20 months of recovery and rehabilitation."

I felt honored to speak with the man whose name I had been wearing around my wrist for months. When I asked about his current abilities, Mr Avilez told me that his leg function returned first. "I still only have limited upper body mobility," he said. As far as walking goes, "I am like a new baby: each step is tedious and careful—and one at a time."

Regarding his outlook on life, Mr Avilez said, "Nothing happens you can't handle." The challenge to become active again excites him and gives him "a platform." "You never know what you are capable of until you are faced with a situation and you can choose to sink or swim." When I spoke to him, he was back at the fire station on restricted duty, with a definite goal in mind. "Without a doubt," he told me, "I'll be back on the fire truck."

Although Ms Sagmeister, Dr Odeh, and Mr Avilez have thrived in their recoveries and professions, people with disabilities remain underrepresented in the medical field. The Americans With Disabilities Act of 1990 added major amendments in 2008,² but according to one survey,³ students with disabilities account for only 0.4% of medical school graduates.

Medical professionals with disabilities continue to confront individuals who evaluate competence by their disability rather than their ability. One common theme emerged from talking with Ms Sagmeister, Dr Odeh, and Mr Avilez: functional limitation does not equal functional competence. Reichgott⁴ wrote that "independent motor performance may no longer be an essential requirement" in a medical school program. In the end, the problem is not with disabilities, but in the misconception of individuals with disabilities.

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