Rethinking the Walker for Easier Movement

www8.gsb.columbia.edu/articles/columbia-business/rethinking-walker-easier-movement

Tracy Ivie

By now, most of us know that the population is aging: by the year 2030, there will be more than 70 million people over age 65. Plus, medical advances mean people are living longer with chronic diseases such as diabetes and arthritis, and need new tools to help them navigate their daily lives.

Fueled by a desire to help patients with mobility issues, neurologist Patricia Kavanagh ’78 co-founded Foray Design in 2012 to create medical devices that are both functional and more attractive than those typically available for people with disabilities. The company’s first invention is *Spring*, a lightweight, multipurpose walker that was recently a runner-up in the international design competition, Core77. The patented *Spring* is expected to launch within the next year.

Dr. Patricia Kavanagh '78

Kavanagh's path to her newest venture has been filled with several fascinating career turns. After spending four years as a journalist, she gravitated toward the world of business, earning her MBA. She then spent a decade at Lehman Brothers as an investment banker, followed by seven years as president of *Grant's Interest Rate Observer*, published by her husband, the financial journalist and historian James Grant ('72SIPA).

Kavanagh's next accomplishment was going to medical school in her mid-forties; and today she specializes in movement disorders at her Brooklyn practice. Her observations on Parkinson's disease have been published and she has lectured extensively in the medical community. Here, she talks about blending medicine and entrepreneurship, and the need for innovation in the medical-device space.

What made you want to redesign the conventional walker?

The inspiration for *Spring* came from treating patients who were having difficulty walking and who were falling and becoming isolated and depressed. I have had men weeping in my office when I tell them they need a walker. They felt deeply ashamed. There is something about the appearance of the existing devices – the way people look when they're using them and the difficulty of transporting them – that was just a blow to patients. So for a long time, I thought that something better should exist, and it took a while to find the right design and business combination.

You've called *Spring* both elegant and unique. What's different about it?

With conventional walkers, people walk behind them and hunch over. A person of authority is forced into a deferential posture. Ours doesn't work unless you're right at the front of the frame, so you stand taller. This is not only good for your posture, but it also puts a person at a good social distance. So if they're going into a party or a store, they're not trying to talk to somebody from four feet away.

Spring opens and closes with a single motion and is much smaller than a conventional walker when folded—at 40 percent of the volume of a conventional walker, it's comfortable and convenient. It also functions as a chair. It rolls right up to a table and turns around. The seat back adjusts to chair height and locks the brake, so users are at a table like everybody else. The compact size really is a life changer. With two braking systems and all the cables internalized, it is safer than many conventional walkers.

Spring is also customizable. A person can have a sporty-looking seat for daytime and a dressy-looking seat if they're going to a restaurant, and that gets to the heart of our brand identity – we're de-medicalizing the walker. It's safer, it makes people more confident and

puts them in control.

What are some other potential opportunities for innovation when it comes to the aging population?

The business opportunities are almost endless for this population because they are so committed to preserving good health and an active, engaged lifestyle. There are catalogs full of products for people who have one limitation or another, including handbags with Velcro closures instead of zippers and little backpacks, or handbag-type backpacks, for people who have to travel with oxygen tanks.

How did your business school education help in launching your company and, ultimately, bringing your first product to market?

Several things are significant from business school. First, the importance of working with good people who are trustworthy. My two business partners certainly fit that bill (Hal Ebbott and Colin Touhey, who teaches at Columbia's Graduate School of Architecture) as well as our industrial design firm, ION Design. Working with people of complementary abilities goes back to the study groups we had at Columbia—the idea that if you put the right group together you can all do better. The second aspect of my business school training was all the nuts and bolts of stuff I learned, practical skills such as marketing and finance. The third is the groundwork for strategic thinking, which has been critical.

Why did you decide to go to medical school after working so many years in other fields?

Initially, there was a moment when I had a little time and the freedom to explore and I wanted to make up for the fact that I had not really had a very complete science education. I started taking chemistry courses and discovered that I was absolutely riveted and could not wait to do my homework. By then I was around 40, and that's a time when a lot of us evaluate what the next leg in our working lives is going to be.

I was a mother of young children, and my parents started to have serious illnesses. I also had a couple of serious illnesses so I was going to doctors a lot for myself, for my kids, and for my parents. I became fascinated with the intellectual process of diagnosis. Putting that together with the exploration I was doing with chemistry, I discovered that I really loved science. It was sort of late in life to have that discovery, but it was energizing. So I started to think seriously about becoming a doctor. And I asked myself, "How badly did I want it?" And the answer is, "I wanted it very badly."

Were there any special hurdles you had to overcome in designing *Spring*?

The major hurdle in designing *Spring* was how complicated it was to make this prototype. It took much longer than I expected because this device does so many things. I probably would have compromised along the way, and my hat is off to my partners. When I said, "We could

have A or we could have B, they would say, “No, we need A *and* B.” It was frustrating at times, but worth it.

I will say, though, that I've never had a business hurdle that was as challenging as some of the hurdles I had to go through to become a doctor. I knew that I was older and I didn't have as much stamina. I had the required science preparation, but I hadn't done dozens of years of science like my classmates.

What would you like to redesign next and what problem would it solve?

I’d like to create a self-operated wheelchair that would that let the user press a button and go up and down any set of stairs. The person in the wheelchair would not need an assistant nor any hardware installed on the staircase. Stryker has a product for EMTs but it requires trained people to operate. To my knowledge, there is no commercial product for the everyday user and I think that a device like this could let the wheelchair user go anywhere, anytime.