

Nintendo's Wii finds use in physical therapy

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The Wii isn't just for Mario anymore.

The popular Nintendo system's motion-sensing controller, originally popularized as a way to play virtual sports, also has an important use outside the realm of entertainment.

Therapists at the Sister Kenny Rehabilitation Institute at Abbott Northwestern Hospital in Minneapolis began using the Wii console about two months ago to help stroke victims recover.

Dr. Lars Oddsson, director of research at the institute, said therapists have used the Wii in situations where more traditional forms of therapy haven't worked.

"They have added this to provide a new component and a stimulus and some excitement," he said. "You get involved and you get engaged and you don't think about doing therapy," he said.

Erica Stern, associate professor and director of graduate studies in the program of occupational therapy, said using technology to aid in rehabilitation isn't a new innovation.

"It helps people understand where their weaknesses are," Stern said. "It gives them that experience in the virtual world where you let things unfold in their natural order without having a physical consequence."

A typical rehabilitation program has three phases, Stern said: an inpatient phase, outpatient phase and community integration period.

Stern said the Wii's reasonable price allows patients to use the system to continue rehabilitation at home.

"The biggest asset that the Wii offers to me is that it's low-priced enough that people can develop home programs off of it," she said. "Once the patient can be independent in its use, why not?"

First-year biology student John Stenmoe said he can see the benefits that can come from the Wii beyond entertainment.

"For a while, I used the Wii for exercise," Stenmoe said.

He said if a person "really gets into" using the Wii for rehabilitation purposes, he or she will see progress.

While Stern said traditional physical therapy combines exercise and functional activity, such as walking steps, associate professor of computer science and engineering Loren Terveen said the Wii is a good tool when traditional therapy becomes unexciting.

"Doing your physical therapy is pretty boring," he said. "If you can make it into an enjoyable activity where you're moving physically and going through motions that are helping you recover, and as a part of that you're playing games that are fun, it's just a great, creative use of the technology."

Terveen said the Wii's software could possibly be used more extensively down the road.

"Down the road, you can imagine designing games that are tailored to help people recover from their injuries," he said. "Of course, if you lose the fun, it's just another form of physical therapy."

Oddsson said Sister Kenny therapists have discussed researching the Wii therapy more, and that the hospital uses other virtual reality systems.

Stern said, however, she believes technology will never take the place of hands-on therapy.

"If you talk to people using the Wii they will tell you how much fun they're having with it," she said. "But if you really dig into what they are saying, usually there'll be a therapist behind it."