## AUTISM: Using an iPod helps people with autism perform better at work

FROM PAGE E1

iPod that used videos, clock alarms and written messages to remind him of work tasks.

With his workday clearly delineated, Jeffrey no longer felt so nervous that he had to calm himself down by spinning and humming.

In a case study published this week in the Journal of Vocational Rehabilitation, researchers said the use of an Apple iPod Touch greatly improved the workplace performance of employees diagnosed with autistic spectrum disorder, or ASD, and greatly reduced episodes of disruptive behavior.

The program uses a suite of applications that include lists, scheduled reminders, video prompts, navigation instructions and calming movies or music.

The program reminded Jeffrey to move on to other cleanup tasks instead of wiping down the same table endlessly. And it helped 60-year-old "Grace" cope with the stress of catching the bus to and from work.

It also helped 20-year-old "Lily" negotiate her job as a hospital custodian even though she could not read or write. (The names of the study participants are pseudonyms. Their true identi-

ties were withheld by the study authors to protect their privacy.)

Today, only 15 percent of U.S. adults diagnosed with autism hold paying jobs, according to study author Tony Gentry, an occupational therapy professor at Virginia Commonwealth University.

Difficulties involving cognition, behavior and poor communication make it hard for people with autism to be employed. However, occupational therapists say people with autism have valuable workplace skills, and efforts to keep them in jobs help businesses as well as the workers.

Some autistic adults excel at math and computer skills, while others have photographic memory. Others exhibit high levels of honesty, reliability and perseverance, and their limited interest in personal relationships makes them less likely to engage in workplace socializing, according to study authors.

The case study was part of a four-year trial that involved dozens of people and was funded by the National Institute on Disability and Rehabilitation Research. The iPod Touch was chosen because at the time the study was designed, it was the only OCCUPATIONAL
THERAPISTS SAY
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pocket-sized personal digital assistant, or PDA, available.

Each person in the study also was paired with a work coach who helped train the worker to use the program and tapered off involvement as the person became more proficient at work.

Grace, who also suffers from mild cerebral palsy and epilepsy, worked at a state employment commission sorting mail. Her greatest difficulty involved her commute.

When confronted with the busy street corner where she caught her bus, she would grow anxious, leave her purse on a park bench and stand in the road looking for the bus.

Podcasts of her favorite radio shows and music helped relax her, while a reminder told her to phone the transit authority to ask about bus delays instead of standing in the road.

The third person in the study, Lily, who had Down syndrome, could not read, tell time or understand a calendar. She did housekeeping work in a mother-andinfant unit of a hospital and would often lose her focus on tasks such as folding and stocking blankets, cleaning the lactation room and sterilizing work stations.

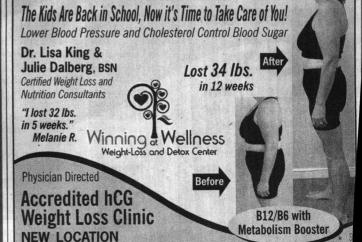
When she became particularly confused, or was asked to leave the lactation room so a mother could use it, she would become angry and throw soft drinks, stomp her feet or call her mother.

Occupational therapists programmed Lily's iPod with a color-coded calendar that outlined each day's tasks in a slide show and provided audio prompts on when to take breaks and when to clock out.

Lily's favorite Disney movies and music were also downloaded to the iPod to keep her occupied during her long bus ride to and from work, a period that was usually filled with boredom and anxiety.

The iPod worked well, authors said, until Lily lost it: Then she relapsed into poor behaviors. When she was given a new device a week later, her work improved. The device also was equipped with a lanyard case to help keep it from getting





## coming up HOSPITALS, OTHERS TO HOLD EVENTS

Several health-related events are coming up locally, including:

- Stafford Hospital will host a discussion of highrisk pregnancies Sept. 25 at 6 p.m. At the same time, Spotsylvania Regional Medical Center will host a seminar on prostate cancer.
- Heart to the Sky Yoga Space in Fredericksburg will host a yoga class Sept. 29 at 4:30 p.m., to benefit the Lloyd F. Moss Free Clinic.
- The Howlin' Coyote 10K trail run is scheduled for Sept. 29 at Caledon State Park.

Learn more about these events and others in Healthy Life Virginia. Go to fredericksburg.com/ gethealthy to sign up. -Janet Marshall

## Apps help those on autism spectrum

BY MONTE MORIN

LOS ANGELES TIMES

LOS ANGELES—"Jeffrey" was barely two weeks into his first job, and already he

was about to lose it.

The 21-year-old with autism was good at wiping down tables and cleaning bathrooms at a Virginia fastfood restaurant, but his boss grew alarmed whenever Jeffrey would spin around in the dining room, humming to himself and staring at the ceiling.

The shy \$8-an-hour custodian managed to keep his job after he was equipped with a specially programmed

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