Johns Hopkins Physical Medicine and Rehabilitation

Winter 2017



Patient Engagement Training Shares Traditions from Rehabilitation

atients who used to stay in the hospital for a month are now staying two weeks tops," says **Nicole Schechter**, a rehabilitation psychologist. "There's an emphasis on increasing the quality, rather than the quantity, of care across the field of medicine."

Because of this trend, Schechter and **Stephen Wegener**, director of the Division of Rehabilitation Psychology and Neuropsychology, are sharing the traditions of patient engagement from their specialty of rehabilitation. They started patient engagement training three years ago to teach nurses, social workers, community health workers and physicians across Johns Hopkins Medicine to engage patients as partners in their health care and to teach new health behaviors—something that has long been part of the rehabilitation process.

Over the last three years, Wegener and Schechter have trained more than 350 health care providers



to employ strategies from communication science and motivational interviewing to enhance patient engagement and achieve the goal of patientcentered care at Johns Hopkins Medicine.

For example, motivational interviewing, an evidenced-based set of principles and skills originally developed for work with individuals with addiction disorders, helps patients make decisions about taking an active role in their health. It gives practitioners a way of interacting and collaborating with patients to make changes that will improve overall health outcomes. This approach can also improve satisfaction with care.

"Patients who feel understood and listened to, and have their priorities, goals and values respected, are going to feel more satisfied with their care," says Schechter, "They are also more likely to be engaged in their care."

To help providers develop patient engagement skills, the training includes three stages: planning, initial training and maintenance. During the planning phase, the patient engagement team works with the leaders of the team it will be working with to understand who will be trained and what their goals are. Nurse case manager Kay Concha, left, and patient experience concierge Tiffany Stokes, right, participate in patient engagement training with Nicole Schechter, middle.

The second phase, initial training, includes a 60- to 90-minute lecture to learn about the values, principles and skills of patient engagement. It then provides four to seven hours of basic training and

one hour of additional education for patient engagement champions, who assist in ongoing maintenance activities for their teams.

The final maintenance phase lasts for one year and supports ongoing development and practice of participants' acquired skills. The patient engagement champions create a maintenance plan for the group and have monthly training goals. Schechter provides materials and exercises that can take five to 15 minutes each to help maintain and refresh trainees' skills.

"Our program is different from others across the country because it is in-person, skills-based training as opposed to passive online learning," says Schechter, "and we have a maintenance program to ensure participants receive continuing development of their skills. Many other programs underestimate the importance of maintenance in provider skill development."



Pablo Celnik

fter serving as interim director since 2014, I am honored and thrilled to now be appointed director of the Department of Physical Medicine and Rehabilitation. I will also be serving as physiatrist-in-chief for The Johns Hopkins Hospital and the Lawrence Cardinal Shehan Professor of Physical Medicine and Rehabilitation.

I look forward to continuing to support the important work my team is doing to improve function, independence and quality of life for patients with physical and cognitive limitations. To see some examples of this work, check out the stories in this edition of *Restore*.

As always, my research interests will remain focused on improving our understanding of the mechanisms underlying motor learning and motor recovery after brain injury, and on developing new interventions and strategies to enhance motor recovery after stroke.

It is exciting to be able to continue many of the activities that I enjoyed as interim director, such as mentoring junior faculty members and students, and establishing a postdoctoral training program aimed at providing the skills needed to conduct independent translational research. But I am also excited about launching the Activity and Mobility Program across Johns Hopkins Medicine to encourage and facilitate exercise for all patients during their hospitalization. In addition, we are developing an inpatient rehabilitation unit at Johns Hopkins Bayview Medical Center to focus on stroke and other neurological conditions, orthopaedics, and spinal cord injuries.

If we can help with any physical medicine and rehabilitation needs, please let us know: 410-614-4030.

Electroacupuncture Treats **Spasticity**, **Pain**, **Headaches and Nausea**

hen physical medicine and rehabilitation specialist **Sravani Mehta** was in her residency at the State University of New York (SUNY) Upstate, she took a tumble onto her right wrist during a ski trip. The fall left her with symptoms so debilitating and mysterious that she and her colleagues were at a loss to make sense of it.

Trained to interpret pain as coming either from a musculoskeletal or nerve source, Mehta realized that this injury didn't have clear signs of either—some areas of her wrist were tender, while others had numbness or tingling.

"There was no real pattern," she remembers. "It didn't make any sense."

As she cycled through different types of specialists, undergoing various imaging and lab tests, no clear diagnosis emerged. But one day, while she was training in electromyography and nerve conduction tests, a chance event nudged her toward an effective therapy. After asking a colleague to apply electrical stimulation to her wrist, she experienced complete relief, if only for a half hour.

While talking with Chinese physicians visiting SUNY for volunteer observerships, she had a sudden epiphany electroacupuncture, which delivers electrical current through needles to stimulate specific acupuncture points throughout the body, could offer the holistic help that her body needed to heal. After just a single session, Mehta

"There's no reason that electroacupuncture can't be an earlier option in the treatment timeline."



Sravani Mehta treats Nelly Zusin with electroacupuncture.

decided to train in this treatment modality after her residency ended in 2014.

Now, as a practicing clinician who treats patients with brain injury or stroke, Mehta regularly offers electroacupuncture to those who might benefit. This treatment can make a significant, positive difference for spasticity, pain, headaches and nausea. Electroacupuncture offers an alternative to the medications typically used to treat these conditions, which often come with a host of undesirable side effects.

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Brand-New Facility Offers State-of-the-Art Rehabilitation

new facility at The Johns Hopkins Hospital will provide state-of-the-art inpatient rehabilitation care that focuses on quickly returning patients to their daily lives. The facility will accommodate patients with general and specialized needs, including those who require immunomodulating treatments, select radiation and chemotherapy, and those who have undergone left ventricular assist device implants and solid organ and bone marrow transplants.

Approved by the Commission on Accreditation of Rehabilitation Facilities, the unit has all-private rooms with private bathrooms and sofas that convert to beds so family members can stay in the rooms. State-of-the-art features throughout the facility are designed with patients in mind and to promote a quick recovery:

- A mock apartment with a bedroom, bathroom and kitchenette where patients can practice the tasks of living independently
- An area called street scape where patients can rehearse activities of daily living, such as grocery shopping and using an ATM
- Airline seats for patients to practice maneuvering in small areas (especially helpful for patients who have traveled a long distance to the hospital)

Water Swallow Test Proves to Be Most Sensitive for Dysphagia

wo researchers met for dinner before a conference and discovered they had a common frustration. To identify patients with dysphagia, clinicians across the country use different techniques with different accuracies. Depending on the test used, the clinician may or may not identify a swallowing disorder in a patient. "Identifying dysphagia early can reduce morbidity, mortality and costs," says **Martin Brodsky**, a swallowing disorders researcher. "But we need an accurate screening test."

Debra Suiter, a speech-language pathologist and researcher at the University of Kentucky, agrees.

As a result of their conversation, the two researchers teamed up to review the accuracy of one of the most widely used techniques—the water swallow test.

They collaborated with others from Johns Hopkins and the American Speech-Language-Hearing Association to conduct a meta-analysis and systematic review of the literature evaluating water swallow tests using any volume of liquid. To identify dysphagiaassociated aspiration, the criteria for aspiration

included the observance of a behavioral airway response, specifically coughing, choking, throat clearing or a change in yoice.

> The studies they examined had to have validated their

Martin Brodsky

swallow test findings with follow-up instrumental evaluations. Using their criteria, the researchers came up with 22 studies, including Suiter's research from 2008 with the late speech-language pathology researcher Steven Leder, which recorded the results of a 3-ounce test for several thousand patients.

Based on their review, the team found the water swallow test offers sufficient utility in screening for aspiration. Specifically, the research team found that when patients take consecutive sips from larger volumes and do not have any symptoms, the test accurately rules out aspiration. With sips of approximately 1 tablespoon or less, the presence of coughing, gurgling or throat clearing accurately rules in aspiration. The false-negative rate increases with small volumes alone.

"One single type of water swallow test may not offer the level of discrimination that clinicians require, but consecutive sips of large amounts prove to be the most sensitive to identifying aspiration," says Brodsky.

An advantage of the swallow test is it can take place quickly in any setting with providers who are trained to notice the symptoms. If the patient shows no signs of aspiration, a diet can be started. If the patient does have symptoms, a speech-language pathologist can evaluate the patient.

"This way, the patient is identified early, and you keep an aspiration pneumonia diagnosis at bay," says Brodsky.

At The Johns Hopkins Hospital, Brodsky is currently working to get the water swallow test built into the medical record for nurses to complete before physicians order a referral for speech-language pathology.

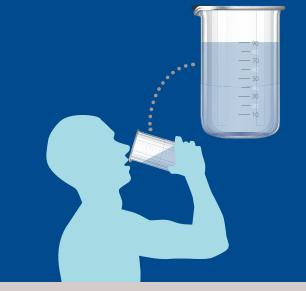
To see the meta-analysis and systematic review, visit bit.ly/swallowtest.

Dysphagia at a Glance

- Present in 50 percent of patients discharged from the hospital with four of the top five common general medicine hospital diagnoses.
- Associated with a 40 percent increased hospital length of stay.
- Approximately four times more likely to cause a return hospital visit within 30 days.
- A complication is pulmonary aspiration, which can lead to aspiration pneumonia.

Water Swallow Test

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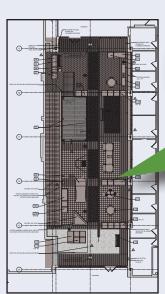
HIGH SENSITIVITY = Consecutive sips of 90 milliliters

HIGH SPECIFICITY = Individual sips of 20 milliliters or less

- A courtyard with several surfaces—such as gravel, grass and sidewalk curbs, where patients can master walking—and a car, where patients can practice transferring
- Animal-assisted therapy as a comforting treatment modality for patients that enjoy animals









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Since starting the program, data from participants indicate they are very satisfied with their training and believe it is useful in practice. Now, Wegener and Schechter are conducting initial studies to determine the impact of the program on participant knowledge, attitudes and skills.

Restore

A newsletter from Johns Hopkins Physical Medicine and Rehabilitation

Johns Hopkins Medicine Marketing and Communications 901 S. Bond St., Suite 550 Baltimore, MD 21231

This newsletter is one of the many ways we seek to enhance our partnership with our referring physicians. Comments, questions and thoughts on topics you would like to see covered in upcoming issues are always welcome.

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Electroacupuncture Treats Spasticity, Pain, Headaches and Nausea

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Electroacupuncture isn't an appropriate option for everyone, Mehta explains. The treatment can be timeconsuming—typically hourlong appointments two to three times a week for at least several weeks—and often isn't covered by insurance. It's also contraindicated for patients with seizure disorders or those with implanted devices that can be affected by outside electrical pulses, such as pacemakers.

Despite the bias that many Westerners have against "alternative" treatments, Mehta says, her patients in general have been very open to trying electroacupuncture—many have exhausted the options that Western medicine has to offer and are eager to have another. However, leaving it as a last choice can make effective treatment more challenging.

"I'm always encouraging colleagues to send me their patients sooner," Mehta says. "There's no reason that electroacupuncture can't be an earlier option in the treatment timeline." To learn more about Johns Hopkins Physical Medicine and Rehabilitation, visit **hopkinsmedicine.org/pmr**.

For referrals and consultations: Hopkins Access Line (HAL) 1-800-765-5447 or 410-955-9444

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