Hemani leads telemedicine effort

Telemedicine, the ability to use technology to save time, money, effort, and to be able to provide care to anyone, no matter the location, has greatly impacted the way we look at a simple doctor’s visit.

No longer do you have to sit in traffic to get to your appointment. You don’t need to worry about taking off work or pulling your child out of school. Care can be provided in the comfort of your own home.

Using this concept, the University of Texas Health System’s Virtual Health Network (VHN) aimed to connect all campus and health science centers in the UT System as a way of providing care. For example, if a specialist was located at the UTHealth campus in Houston, they could provide consultation to doctors at UT Rio Grande Valley via telemedicine.

Once all the UT System institutions were connected, VHN expanded to further connect the UT System to other agencies such as state hospitals, schools, and jails. With the support of VHN, the Faillace Department of Psychiatry and Behavioral Sciences partnered with the Health and Human Services Commission of Texas (HHSC) to provide inpatient psychiatric care at their hospitals.

HHSC identified the North Texas State Hospital, the largest state hospital in Texas, comprised of two facilities- one in Wichita Falls and the other in Vernon - that needed help. Due to the town’s small population and remote location, the North Texas State Hospital had staffing issues due to high turnover rates and reliance on short-term position contracts. This led to increased costs and limited continuity of care at the state hospitals.

That’s when the partnership between UTHealth, with VHN’s support, and HHSC stepped in. Umair Hemani, DO, was the first doctor to join. Working mostly with the forensic population, Hemani was the first to provide inpatient services at the North Texas State Hospital.
With a single full-time staff member providing services through telemedicine, care became consistent, less costly, and more effective. As time went on, the full potential and benefits of telemedicine were recognized, leading to an expansion of services to other state hospitals in Texas.

What started out with just Hemani, who is the director of telemedicine in the department, has now expanded to a workforce of eight doctors. There are UTHealth doctors providing care in various state hospitals, for those suffering from severe mental illness, including psychotic disorders, mood disorders, and substance use disorders, all through telemedicine.

Hemani says the ultimate goal is to provide care to every state hospital and state-supported living centers in Texas.

“This is something that we’re very proud of,” Hemani said. “It has grown mutually because they see the value in our services, and we as a department have been able to build relationships with HHSC as well as individual state hospitals.”

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**Faculty spotlight:**

**Project builder, Osman, joins psychiatry department**

Ossama Osman, MD, is a new addition to the Faillace Department of Psychiatry and Behavioral Sciences. He comes with an extensive background in several areas.

With a career spanning more than 30 years, Osman has worked both domestically and abroad. Starting out in a residency program at Southern Illinois University, then a research fellowship at the National Institute of Mental Health, Osman had stops at the University of South Florida, Mercer University, back to SIU, and in the Gulf Region. His roles include laboratory research, clinical research, medical director, professor, and building up various programs, several of which he laid the foundation for.

Through his work, Osman found his passion in program development, including education, research, and program building. In his time in the Persian region, he founded the first structured psychiatric residency training program in the United Arab Emirates, which more than 65 students graduated from. He also developed several undergraduate and graduate courses in psychiatry, such as basic counseling skills, basic clinical skills, and ethical conduct.

Osman's passion for programs and research attracted him to the Faillace Department of Psychiatry and Behavioral Sciences. The progressive, innovative way research is conducted, combined with the opportunity to work with world-class researchers made this a perfect fit for Osman.

“Dr. Soares being such a distinguished psychiatrist has impressed me,” Osman said. “I wanted to be part of this new experience in trying out new challenges and help develop and advance new programs. Just being a part of this impressive history was a motivating factor for me to move here.”

Osman is married with two sons and has two grandchildren. In his spare time, he likes to stay active by playing squash, a form of racquetball, and working on his golf game. He also enjoys
Meisch finds joy in research

Richard Meisch, MD, PhD, has dedicated his life to conducting research for those suffering from drug addiction. As in other areas of medicine, progress in treatment depends on scientific studies.

Though much research has been done in this area, Meisch has found that a vital control is missing when testing the effectiveness of medications for treating addiction.

In a recent publication in the journal Behavioural Pharmacology, Meisch examines how many medications are showing positive results - at the experimental level, but it’s not due to the subject choosing not to take the abused drug.

“If you give any animal enough of anything, the behavior will decrease,” Meisch said. “The missing control is a reinforcer balanced effectively with the abused drug, where the animal can choose between the two.”

For a new medication to work, a subject should selectively decrease intake of the abused drug. Meisch developed a novel testing paradigm that encourages test subjects to choose whether to take the abused drug or an alternative reinforcer. In this study, alcohol and saccharin were used as the reinforcers.

By adjusting saccharin concentration, test subjects chose the saccharin equally as often as they chose alcohol, demonstrating that, under the proper conditions, the reinforcing effectiveness of the saccharin was equal to that of alcohol.

Meisch now plans to identify medications that are selective; that is, they yield an effect that reduces the reinforcing effect of drugs of abuse (e.g., alcohol, opiates) without side effects and without disrupting the reinforcing effects of other alternatives like saccharin or water.

Meisch has also had a great passion for his research. Coming to UTHealth in 1988, he was a faculty member until 2008. After stepping away for health reasons, he returned in a Professor Emeritus role.

After deciding he wanted to continue to conduct his research, Meisch restarted his role as a researcher full-time.

He says it’s the best decision he’s ever made.

“In behavioral research, you get immediate feedback each day,” Meisch said. “I’ve been consistently lucky in the past – things have worked enough to where I enjoy it. It gives one a reason to get up in the morning.”
Joy Schmitz, PhD, has been nominated and approved to serve as a standing member of the Interventions to Prevent and Treat Addictions (IPTA) study section of the National Institutes of Health.

A study section is the first level of peer review for research grant applications being considered for federal funding. Study sections are comprised of a panel of experts who conduct research in a designated area of study. Members of these sections offer their knowledge and expertise, based on having obtained NIH grants in the area of study.

Schmitz was invited to serve on IPTA because of her work as the director of the Center for Neurobehavioral Research on Addiction (CRNA) that focuses on developing and evaluating treatments for substance use disorders.

Using this expertise, she will now be assigned applications to review and present at three meetings per year that typically take place in Washington, D.C.

Serving on a study section is time-consuming, however Schmitz feels honored to have this opportunity to contribute to the research effort on a national level.

“I’m glad to contribute,” Schmitz said. “I have an understanding of the review process and how helpful it can be to receive fair, objective, and constructive feedback. Serving on IPTA will be a great way to stay abreast of the newest research and what reviewers are looking for in a competitive application.

Clinical trials:
Understanding vagus nerve stimulation (VNS) for treatment resistant depression

Vagus nerve stimulation (VNS) is a surgical procedure that was approved in 1997 to treat seizures associated with epilepsy. The procedure involves the implantation of a device along the vagus nerve in the neck, which is connected to a stimulator implanted just below the collar bone. The implant delivers a small electrical pulse to the vagus nerve.

In epilepsy, the stimulation acts to suppress seizure activity. It was discovered that VNS also reduced depression symptoms in some patients, which led to the use of VNS therapy for depression in treatment-resistant individuals. It was approved by the FDA for use in depression in 2005, and continues to be an option for severe, recurrent unipolar and bipolar depression. VNS is currently under review for coverage by CMS, which will expand access to the procedure.

If you or a family member are suffering from treatment-resistant depression and would like to explore available options, please contact our Treatment Resistant Depression Clinic at 713-486-2700.

Patient care:
Sanches joins the TRD Clinic

Marsal Sanches, MD, PhD, FAPA, has recently joined the Treatment-Resistant Depression Clinic at the Faillace Department of Psychiatry and Behavioral Sciences. The Treatment-Resistant Depression Clinic offers care to patients that have tried several forms of treatment without success. Patients experiencing this are considered “treatment-resistant” or “refractory” and are likely to give up on their treatment.

The clinic provides cutting-edge technologies and resources in a single location to improve personalized treatment, enhance care coordination, and expand accessibility. Innovative, evidence-based therapies such as transcranial magnetic stimulation (TMS), electroconvulsive therapy, ketamine, and deep brain stimulation are used to treat patients.

In late January, Joao de Quevedo, MD, PhD, and Bobby Nix, MD, approached Sanches about joining the Treatment-Resistant Depression Clinic to work with patients receiving TMS.

With one of his specialty areas being mood disorders, Sanches saw this as a unique opportunity to expand his ability to serve patients and work with a program he feels has a good initiative.

“We want to make sure we’re offering everything possible,” Sanches said. “Many patients don’t have a good response to available treatments. Any effort aimed at improving that response in patients sounds very attractive.”

Research:
Baylor and UTHealth join forces for study

Sudhakar Selvaraj, MD, PhD, and Raymond Cho, MD, MSc

McGovern Medical School at UTHealth and Baylor College of Medicine are teaming up to conduct a study to treat depression.
Sudhakar Selvaraj, MBBS, PhD, from the Faillace Department of Psychiatry and Behavioral Sciences and Raymond Cho, MD, MSc from the Menninger Department of Psychiatry and Behavioral Sciences at the Baylor College of Medicine, received a joint award from the National Institute of Health (NIH) to explore the effectiveness of transcranial magnetic stimulation (TMS) in treating depression symptoms.

Treating depression is a major clinical challenge, according to Selvaraj. Prescribing medications is often on a trial-and-error basis, with close to 50% of patients not responding to the treatment.

Repetitive transcranial magnetic stimulation (rTMS) is being used as an alternative to medication-based treatments. Selvaraj and Cho are combining TMS with electroencephalography (TMS-EEG). This technique will show how the brain responds to TMS when a magnetic pulse is sent to the brain, ultimately serving as a predictor of treatment response.

To qualify for this study, patients would have to experience a nonresponse in at least two medications. There will be two groups studied; one that will get the active treatment and the other will be a placebo controlled group.

Selvaraj estimated that rTMS is an effective treatment for about a third of patients. This study will allow researchers a way to characterize who best responds to this method of treatment.

This study, called TMS-EEG investigation of prefrontal cortical excitability in depression and rTMS treatment response, is a two-year study funded by NIMH.

Selvaraj hopes the research results will allow doctors to cut down on the trial-and-error aspect of finding an effective treatment.

“We want to see who benefits from this treatment so we can give it earlier on,” Selvaraj said. “People often have a limited and delayed response to treatments which significantly affect them and their family.”

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**Education:**

Welcome our new child fellows!
Publications

**Elevated Neutrophil to Lymphocyte Ratio in Older Adults with Cocaine Use Disorder as a Marker of Chronic Inflammation.**
Soder HE, Berumen AM, Gomez KE, Green CE, Suchting R, Wardle MC, Vincent J, Teixeira AL, Schmitz JM, Lane SD.

**The use of component-wise gradient boosting to assess the possible role of cognitive measures as markers of vulnerability to pediatric bipolar disorder.**

**Language predictors of autism spectrum disorder in young children with tuberous sclerosis complex.**

In the media

Leslie Taylor, PhD, was quoted in an AccuWeather story about anxiety caused by storms and how an app available through UTHealth can help.

Austin Lin, MD, spoke with KHOU-TV Channel 11 about the dangers of a new street drug called "gray death."

Vineeth John, MD, MBA, spoke to Business Insider about how workplace culture can contribute to loneliness

Sudhakar Selvaraj, MD, PhD, spoke with MedPage on a brain imaging/antipsychotic study

Upcoming Grand Rounds speakers

Join us for the Grand Rounds in March on Wednesdays at noon at UTHealth Harris County Psychiatric Center:
March 4: Ron Aciero, PhD, Professor, Executive Director of UTHealth Trauma And Resilience Center - Faillace Department of Psychiatry and Behavioral Sciences

March 11: Carmel Dyer, MD, Professor, Geriatric And Palliative Medicine - UTHealth Department of Internal Medicine

March 18: Jennifer B. Hughes, PhD, Assistant Professor - Faillace Department of Psychiatry and Behavioral Sciences

March 25: TBD

Upcoming events

25th Annual UTHealth NRC Free Public Forum

**Advances in Brain Stimulation for Treatment-Resistant Depression**

**Moderator:** Jeno L. de Quevedo, MD, PhD
Professor, Director, Translational Psychiatry Program
Director, Treatment Resistant Depression Clinic
Vice Chair for Faculty Development and Outreach

**Panelists:**
- Jair C. Sarace, MD, PhD
  Professor, Chair of Psychiatry
  Director, Center of Excellence on Mood Disorders
  Vice Chair for Research
- Bobby R. Nix, MD
  Associate Professor, Director, FT Psychiatry-Behavioral Health Outpatient Services
  Vice Chair for Clinical Affairs
- Mansal Sanches, MD, PhD
  Associate Professor, Director, Center of Excellence on Mood Disorders
- Salih Saleh, MD, CMQ
  Associate Professor, Director, IOT Clinic

Saturday, April 4, 2020
10:30 a.m. to Noon
Cooley University Life Center
7440 Cambridge Street
Houston, TX 77054

Free Event - Open to the Public

Register online: https://med.uth.edu/nrc/outreach/annual-neuroscience-public-forum/

Registration information

Registration coming soon!
Mark your calendars
October 9 and 10
The Faillace Department of Psychiatry and Behavioral Sciences presents

2020 Houston Mood Disorders Conference
Bipolar Disorder: Advances in Diagnosis and Management

We appreciate your donation!

Contact us:

Louis A. Faillace, MD, Department of Psychiatry and Behavioral Sciences at McGovern Medical School at UTHealth

Connect with us: