Hernandez-Tejada combines treatments to serve veterans suffering from PTSD

Melba Hernandez-Tejada, PhD, associate professor in the Faillace Department of Psychiatry and Behavioral Sciences, is conducting a study to treat veterans suffering from PTSD by combining telemedicine-based psychotherapy with focused peer support.

Evidence-based treatments for PTSD, such as prolonged exposure, are highly effective and relatively widely available. Hernandez-Tejada notes that, despite this, up to half the patients who start PTSD treatment do not complete it, reportedly due both of logistical issues such as travel time, and more frequently, the demands of the therapy itself, which is often intense.

Hernandez-Tejada and her colleagues have been working on a way to increase treatment engagement and compliance with inter-session homework for these patients. She notes that when patients finish prolonged exposure treatment, nearly 90% show significant improvement. However, this does require that a patient complete a series of often difficult tasks. Some of the exercises involve daily supervised, progressively intense exposures to situations that trigger memories of the traumatic event, and subsequent control of urges to engage in avoidance behaviors.

For instance, if a patient's anxiety is triggered by crowds, the tasks might be to first drive to a crowded store and sit in the parking lot, and then to get out of the car and walk to the door, and then to go inside.

In her study, the specific exercises of confronting trauma-memory trigger situations are completed with the help of another veteran, who has already completed the treatment. This leverages the military's core values of teamwork, a concept familiar to all veterans. This peer is someone the patient feels comfortable with and knows they can trust.

Hernandez-Tejada says the patient and peer work together on these exposure exercises 4-5
times per week for 4-5 weeks. Peer support is limited so that patients do not grow dependent, and so that they are empowered to eventually move forward on their own.

Telemedicine complements peer support by reducing logistical barriers to receiving care (e.g., travel time, costs). The completion rate is predicted to be much higher when it is easier to attend treatment appointments.

Hernandez-Tejada notes that exposure-based treatments for PTSD are effective, but they can be very demanding. “Peer support during key treatment components, such as exposure homework, may help patients overcome barriers related to treatment intensity, and ultimately be successful in completing their treatment.”

Call 713-486-2630 for information on enrolling into this treatment model.

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**Heads conducts PrEP treatment for women**

Angela Heads, PhD, associate professor in the Faillace Department of Psychiatry and Behavioral Sciences, is conducting a study funded by the Centers for Disease Control and Prevention (CDC) to encourage at-risk patients, specifically women, to take medication to prevent HIV.

Pre-exposure prophylaxis (PrEP) is a medication that is effective in preventing HIV infection for those who are at higher risk, including those who engage in problematic substance use or risky sexual behaviors.

According to Heads, men who are sexually active with other men are at a higher risk for contracting HIV. As a result, most of the studies involving getting patients to take PrEP and stay with the medication are conducted in men.

Heads says women make up around 20% of new HIV cases annually. While the case numbers in men have gone down, new cases in women remains unchanged. This means preventive measures in female populations are not being addressed.

Heads’ study will focus on women with substance use disorders, as they are more likely not to take preventive measures while under the influence.

The three-year study will be conducted in three phases: The first phase will be gathering information from patients. Interviews will be conducted, exploring what they see as barriers to using PrEP. A plan will also be presented to patients to get their input on what should actually go into the intervention (e.g., medication delivery method and treatment duration.)

The second phase will be building the intervention. Heads and her team will put together a treatment manual, based on the interviews, which will include the treatment option.

In the third phase, the pilot test will be conducted. Sixty women will be randomly assigned to two groups: an intervention group or a treatment-as-usual group. The intervention group will be treated based on the treatment manual. The other group will be referred to specialists, as is the standard practice.

Heads has set up partnerships in the Greater Houston area to recruit patients and to form a support group.
community to educate with the hopes of breaking the stigma of women taking PrEP, which is mostly fear of other people’s perception of them.

“I have noticed there is so little in the literature about HIV prevention for women,” Heads said. “It made me determined to conduct research in that area to provide much-needed knowledge to inform interventions. This grant award allows me to do that.”

Read more about PrEP here.

Faculty Spotlight: Fernandez focuses on brain function

Luis Fernandez, MD, is an assistant professor at the Faillace Department of Psychiatry and Behavioral Sciences, where he serves as chief of psychiatry services at Harris Health Lyndon B. Johnson Hospital.

Fernandez did his undergrad work at Furman University. He went on to pursue his medical education at the Medical University of South Carolina (MUSC). He completed his internship, residency, and chief residency at MUSC and became an assistant professor there.

Fernandez’s passion is studying biological modalities of treatment, which is the effect a type of treatment or medication will have on the brain. He specializes in treating psychiatric conditions that involve an abnormal functioning of the brain.

Fernandez has been with UTHealth since 2016. Currently, he is working on the electroconvulsive therapy (ECT) study, a procedure he began studying while at MUSC, with his colleagues at UTHealth Harris County Psychiatric Center. ECT involves a brief electrical stimulation of the brain as a form of treatment for severe depression and other conditions when other treatment attempts have failed.

As his career progresses, Fernandez calls his position at UTHealth a “perfect set-up.”

“It has allowed me to be continually connected with other disciplines and medicines,” Fernandez said. “I’m able to work with surgeons or neurologists and help to decipher really complex cases are that aren’t fully neurologic or psychiatric. It’s more like investigative work.”

Taylor helps establish CTRN

Leslie Taylor, PhD, assistant professor in the Faillace Department of Psychiatry and Behavioral Sciences, is the on-site principal investigator for the Childhood Trauma Research Network (CTRN).

CTRN is one of the initiatives of the Texas Child Mental Health Care Consortium, created by the Texas Legislature in 2019 to address mental health care challenges for children and adolescents in the state.
The CTRN spans among 11 different academic medical centers across the state, investigating the impact of childhood trauma, discovering factors that contribute to the risks of poor post-traumatic adjustment, and creating a clinical trials network for childhood trauma studies.

The goal of the network is to better understand, measure, treat, and prevent the negative effects that trauma can have on children’s mental and behavioral health. Taylor says ideally, researchers in the network would like to identify children and young adults who have been through a traumatic experience within a month or two of the experience. Researchers will follow up with participants three times over the course of the year, monitoring whether any symptoms of trauma develop over time.

The network has been in operation for about a year, and additional cross-site research projects are being piloted to build and formalize a clinical trial network. Researchers have the opportunity for cross-site collaboration, increasing their reach to recruit diverse samples of trauma-exposed youth as well as refugee youth, pediatric cancer survivors, and survivors of other types of commonly known psychological traumas in youth (e.g. abuse, neglect, traumatic bereavement).

Specifically, Taylor and her team are looking at how physical and mental health outcomes are affected by traumatic experiences.

Taylor is excited to see what discoveries are made and how they can help children recovering from traumatic experiences.

“It’s great bringing together ideas across the network from people I wouldn’t normally collaborate with,” Taylor said. “I think it’s a great way for us to mobilize research ideas that will ultimately support healing and recovery among trauma-exposed children and their families.”

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**Soutullo assists youth with depression through program**

Cesar Soutullo, MD, PhD, professor in the Faillace Department of Psychiatry and Behavioral Sciences, along with Jair Soares, MD, PhD, who is the principal investigator, is leading the UTHealth node of the Texas Youth Depression and Suicide Research Network (TX-YDSRN), another initiative of the Texas Child Mental Health Care Consortium.

Much like the Childhood Trauma Research Network, the TX-YDSRN connects 13 academic medical institutions, including those in The University of Texas System, to treat children and young adults who are struggling with depression or suicidal thoughts.

The program will identify patients aged 12 to 20 who have depressive symptoms, suicidal ideation, or are undergoing treatment of depression. After an initial visit for evaluation, the patient will participate in a 12-month follow-up to monitor the progress of their treatment.
Suicide is increasing in younger people. Data from the CDC found that suicide is the second leading cause of death in people aged 10 to 35. Soutullo says most younger people whose die from suicide suffer from depression. Factors include enduring traumatic events, physical abuse, sexual abuse, hormonal changes, being unhappy with one’s physical appearance or academic performance, other stressors such as bullying, and a trigger of a severe interpersonal conflict, often with parents.

Soutullo and the network use a technique called “measurement-based care,” as a way to gauge the severity of the depression and to keep track of how treatment is working. At each visit, patients are asked questions about depression and suicidal thoughts, and to rank their severity. The score determines the need for further evaluation and possible treatment.

The rating system helps measure the effectiveness of treatment, and allows the physician to make adjustments.

Soutullo enjoys being able to work in a collaborative network with other major academic centers across Texas.

“It’s very satisfying and encouraging to see this level of interest,” Soutullo said. “At the end of the day, that’s the best thing if you can work together as a team. If it’s not us, someone else can detect the problem and get the child to the right person, so they can have a chance to get better.”

Read more about TX-YDSRN here.

Mendez wins blue ribbon at ACTS conference

Emily Mendez, a sixth-year MD/PhD candidate, recently won the blue ribbon award at the Association for Clinical and Translational Sciences (ACTS) Conference after presenting her poster titled “Molecular signatures of cocaine neurotoxicity in human brain models.”

Mendez is part of the UTHealth Center for Clinical and Translational Sciences TL1 program. Annually, ACTS hosts a conference for clinical and translational scientists and encourages the TL1 graduate and postdoctoral trainees to present their projects.

Mendez’s study involves using different biological and computational methods to see how the drugs affect different cell types in the brain, and compare how people’s brains who suffered from substance use disorder differ from those who did not have this illness.

To accomplish this, Mendez works closely with her mentor, Consuelo Walss-Bass, PhD, the Director of the UTHealth Brain Collection for Research in Psychiatric Disorders. There, the lab performs tissue analysis at multiple levels to investigate how drugs affect the brain.

Mendez is also developing petri dish models of substance use involving brain cell lines derived from the postmortem subjects. These cells are exposed to different amounts and duration of drugs, such as cocaine, to see how the drugs functionally affect the cells on a molecular level.
Several clinical questions can be answered from this study. Currently, there are no therapies for cocaine overdose. Mendez hopes this study will eventually lead to the discovery of therapeutics that will protect the brain if a patient overdoses. She's also looking to discover how drugs affect the brains of long-term drug users, which may predispose them to suffer from poor health outcomes like stroke or cognitive decline.

Mendez says she learned a lot from the conference and is grateful for the opportunity to speak with others in the field about her research.

“This was one of the first conferences I’ve been to that was so multi-disciplinary,” Medez said. “A lot of MD’s and PhD’s come together to discuss bench to bedside translation.”

Read more about ACTS here.

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**Clinical trials**

The following clinical trials are in operation, following all necessary safety guidelines. If you’re interested, contact the appropriate study.

- **Neuroimaging and Brain Cell Structure and Function in Substance Abuse (In Vitro and In Vivo Evidence of Neurotoxicity in Substance Abuse)**
  Contact: 713-500-DRUG (3784)

- **Management of Chronic Pain and PTSD in Veterans with tDCS+Prolonged Exposure**
  Contact: Melba A. Hernandez-Tejada, PhD, DHA PI, 713-486-2524

- **Candesartan as an Adjunctive Treatment for Bipolar Depression**
  Contact: Taya Bockmann, Program Manager, 713-486-2625

To see all open studies, visit our [website](#).

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**We're hiring!**

The following positions are open at our department:

**Faculty – Endowed Chair (Research)**

The Louis A. Faillace, MD, Department of Psychiatry and Behavioral Sciences of the McGovern Medical School at UTHHealth has an extraordinary opportunity for a senior scientist with a funded multidisciplinary program of clinical care research who is at the rank of an Associate or Full Professor.

[Apply Here](#)

**Psychiatrists – Clinical Faculty/Tele-Psychiatry**

The Louis A. Faillace, MD, Department of Psychiatry and Behavioral Sciences of the McGovern Medical School at UTHHealth is currently recruiting for multiple faculty positions based on qualification to include possible rank of Assistant Professor. Our emerging program is currently providing tele-psychiatry services to inpatient psychiatric facilities in Texas. Work
in the comfort of your own home or local office, with only one trip per month needed to visit the site.

Apply Here

Clinician I/II – Texas Child Health Access Through Telemedicine (TCHATT)
Days: Flexible
Hours: Flexible
Apply Here

Adult Psychiatrist – Baytown – Outpatient
*Teledem 80%, Onsite 20%*
Monday through Friday
8 a.m. – 5 p.m.
1 Hour New Patient
30 Min Follow-up
Extra Supplement for location

Adult Psychiatrist – Acres Homes
Monday through Friday
8 a.m. – 5 p.m.
1 Hour New Patient
30 Min Follow-up

Child Psychiatrist (Bilingual Spanish/English) – Spring Branch – Outpatient
*Teledem 50%, Onsite 50%*
Monday through Friday
8 a.m. – 5 p.m.
1 Hour New Patient
30 Min Follow-up

Adult Psychiatrist – County Facility
Competency Restoration
Part Time – 20 hours per week
Telemedicine 100%

To find out more information about these academically driven positions or to apply, please forward a CV and letter of interest to Jair C. Soares, MD, PhD, Professor and Chair, 1941 East Road, Houston, TX 77054, email: Jair.C.Soares@uth.tmc.edu, phone 713-486-2507, fax 713-486-2553.

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**Publications**

**The Role of Mitochondria in Mood Disorders: From Physiology to Pathophysiology and to Treatment - Frontiers in Psychiatry - July 2021**
Anna Giménez-Palomo, Seetal Dodd, Gerard Anmella, Andre F. Carvalho, Giselli Scaini, Joao Quevedo, Isabella Pacchiarotti, Eduard Vieta, and Michael Berk

**Essential genes from genome-wide**

**In the news**

**Bobby Nix, MD**, was interviewed for Houston Public Media’s TESTED video series about how UTHealth reached out to health care workers across the Texas Medical Center to help them deal with the extreme stresses of the pandemic.

**Tatiana Barichello, PhD**, and Rodrigo Morales, PhD, were quoted in a story by Alzheimer’s News Today about a study they conducted...
A Novel Refractory Mood Disorders and Electroconvulsive Therapy Elective for Medical Students: Fighting Stigma through Experience - Psychiatry Quarterly - June 2021
Bernice N. Yau, Carola Rong, J. Chase Findley, Salih Selek