Hypertension is a major risk factor for cardiovascular diseases. Prehypertension affects 30–37% of U.S. adults and reflects high risk for developing hypertension. Prehypertensives need novel, scalable health care solutions to improve blood pressure control and delay or possibly prevent eventual onset of hypertension. This is what TACHL Director Frank Treiber, PhD, had in mind with Tension Tamer, a smartphone application that is designed to engage users in stress-reduction activities to reduce blood pressure.

Dr. Treiber’s multidisciplinary team of scientists, health care providers, patients, and TACHL software developers has produced the app using a careful, patient-centered, iterative process. Native iOS and Android versions of the app have been developed for Tension Tamer, both of which are being used and tested with a diverse sample of African American and White prehypertensives.

“A lot of mobile apps have been developed for stress reduction, but most have undergone little or no testing. Health care providers and consumers need access to scientific data about the benefits of these resources before they are widely disseminated,” Treiber said. Tension Tamer is currently being tested in a 5-year study funded by the National Heart, Lung, and Blood Institute.

Tension Tamer tracks heart rate data through reflective photoplethysmography using the phone’s video camera.

We are excited to announce that TACHL has integrated its patient centered health management architecture with Interactive Voice Response (IVR) capabilities. IVR offers the ability to send and receive automated voice calls to patients and research participants via touch tone responses and voice recognition. TACHL can work with health care teams and researchers to use IVR to facilitate scheduling, sending alerts, conducting assessments (particularly brief assessments such as EMA), and delivering messages and education. This extends TACHL’s communication ability with SMS/MMS, push notifications via mobile applications, video conferencing, and email protocols.

RECENT PUBLICATIONS (MUSC: send us your recent technology-related citations and we’ll list them)


WHERE TO FIND US

Technology Application Center for Healthy Lifestyles (TACHL)
99 Jonathan Lucas St.
College of Nursing
Medical University of South Carolina
Charleston, SC 29425

Contact Person: Sachin Patel, MS
Phone: 843.876.5794
Email: patelsk@musc.edu