

The North Texas Primary Care Research Network Newsletter

DEVELOPMENT AND VALIDATION OF A CLINICALLY PRACTICAL PATIENT ASSESSMENT: Engagement, Literacy, and Adherence (P-ELA)

NorTex is collaborating with the Kentucky Ambulatory Network (KAN), a primary care practice-based research network, to develop a clinical tool useful to primary care physicians. The three constructs of patient engagement in care, health literacy, and medication adherence are especially impactful to health outcomes. The application of a brief and accurate measure of these concepts could contribute enormously to improved patient-centered primary care. Primarily due to the impracticality of administering lengthy surveys within the typical time allotted for a primary care office visit, many currently available assessments have not developed into practical, methodologically sound clinical tools. Some assessments also prove less useful or relevant to clinical application.

The goal of this study is to address the lack of measures for these three important constructs by developing an ultra-brief battery, called the Patient-ELA (Engagement, Literacy, Adherence) tool that will equip primary care clinicians with patient-level information so that they can approach and interact with their patients at a very individualized level. The expected consequence is improved patient-oriented outcomes through behavioral change, shared decision-making, and appropriate and effective health education interactions. The Patient-ELA will overcome barriers by assessing these factors, proving practical even during a typical high-volume fast-paced clinical setting. The objective is for medical staff to administer the brief tool at the intake portion of



the clinical visit (i.e., during vital sign assessments) and utilize the assessment at point-of care for all patients – the Patient-ELA will function, in essence, as the newest “vital sign.”

Using previously validated measures of health literacy, medical adherence, and engagement preferences, this study seeks to develop and validate an ultra-brief Patient-ELA tool for clinical practice. This goal is accomplished by achieving the

following aims: AIM 1. Select and administer validated full-version instruments measuring health literacy, medication adherence, and engagement preference to 200 diverse individuals across 2 states (Kentucky and Texas) representing rural and non-rural populations in primary care offices. Study participants receive a \$10 gift card. AIM 2. Applying item response theory (IRT) methods to the data obtained in Aim 1, a subset of items will be selected to comprise the Patient-ELA for use as an assessment tool in primary care settings. IRT will be conducted by expert Christina Studts, PhD who holds an Assistant Professor position in the University of Kentucky Department of Public Health.

The Principal Investigator is Dr. Roberto Cardarelli, Director of KAN, while Dr. Kimberly Fulda is the NorTex site co-investigator. This research study is made possible by a University of Kentucky Center for Clinical and Translational Sciences (CCTS) small grant award (\$5,000).

NORTEX RESEARCH PROJECTS

FEATURED

CURRENT

NORTEX PROJECT

Clostridium Difficile (C-Diff) Environmental Research Study and Education



NorTex and the University of North Texas Health Science Center (UNTHSC) are partnering with the DFW Hospital Council Foundation (DFWHC) to conduct an environmental sampling of Clostridium difficile (C-Diff) in hospitals, outpatient clinics, nursing homes, and long term care facilities. C-Diff is on the rise in the

United States, and the Dallas/Fort Worth area has seen an increase since 2010 from 6.99 per 1,000 acute patient discharges to 9.51 per 1,000 acute patient discharges in May 2014. Environmental sampling will be conducted in order to examine the prevalence of C-Diff contamination on surfaces in health care facilities. Each location will be sampled three times on three different dates before and after the delivery of an education program provided to each location by the DFW Hospital Council Foundation. In addition to the environmental sampling, data will be collected from each site to learn information regarding infection control policies and strategies in clinics and health care facilities. This research will allow investigators to facilitate educational programs and training to develop best practices to reduce environmental contamination of C-Diff in health care facilities. A total of 33 sites are actively participating in the study.

This project represents an interdisciplinary collaboration between NorTex, Family Medicine, Environmental and Occupational Health, and Cell Biology and Immunology at the UNT Health Science Center with the DFW Hospital Council Foundation. The project investigators are Kim Fulda, DrPH (PI); Joon Lee, PhD; Jerry Simecka, PhD; and Frank Filipetto, DO.

FEATURED

COMPLETED

NORTEX PROJECT

Improving COPD Diagnosis in Family Medicine

NorTex investigators collaborated with the Office of Professional and Continuing Education (PACE) at the UNT Health Science Center to assess provider performance, knowledge, and attitudes regarding use of spirometry for patients meeting the risk profile for chronic obstructive pulmonary disease (COPD) in family medicine clinics. The study included three phases. In Phase I, physicians and residents were surveyed about their knowledge, beliefs, and practices about using spirometers in their practice. During Phase II, participants received an in-



son training on when to use and how interpret the results of spirometry as well as personalized continuing medical education. Phase III included resurveying the physicians to determine differences pre and post education intervention. Twenty physicians and residents participated.

The objective assessment of the physicians' knowledge of use and interpretation of spirometry improved significantly pre and post education intervention, despite no change in their perceived knowledge and competence on use and interpretation of spirometry. (PI: K Fulda; Funded by: UNTHSC PACE Office and Glaxo-Smith Kline)

TARRANT COUNTY PUBLIC HEALTH'S TOBACCO CESSATION PROGRAM

Tarrant County Public Health (TCPH) offers a free, seven week evidence-based Tobacco Cessation Program, Freedom From Smoking, in English and Spanish. Freedom From Smoking, developed by the American Lung Association, is based on proven addiction and behavior change models. It addresses the physical, mental and social aspects of tobacco use. The program offers a structured, systematic approach to quitting, which includes three phases: preparation, quitting and maintenance. It has a positive, interactive focus, with an emphasis on the vast benefits of better health. Because no single cessation technique is effective for all smokers, the step by step



program includes a comprehensive, variety of evidence-based cessation techniques.

The program incorporates four key issues: managing stress, nicotine withdrawal, weight control and long-term strategies for maintaining cessation. For individuals that are unable to attend in-person classes, TCPH also offers Freedom From Smoking online.

Classes are offered on an ongoing basis throughout Tarrant County and at various locations. Potential participants and interested

professionals can learn additional information at [817-321-4976](tel:817-321-4976) or smokefree@tarrantcounty.com

Freedom
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RECENT PUBLICATIONS AND PRESENTATIONS

NorTex has been actively disseminating research in conferences and journals.

HERE IS A LIST OF RECENT PUBLICATIONS AND PRESENTATIONS.

PUBLICATIONS

Fulda KG, Johnson KL, Hahn K, Lykens K. (2013). "Do unmet needs differ geographically for children with special health care needs?" *Maternal and Child Health*. 17(3):505-11. doi:10.1007/s10995-012-1029-4 [PMID: 22535217] (published on-line early April 26, 2012)

Balyakina E, Mann C, Ellison M, Sivernell R, Fulda KG, Kaur Sarai S, Cardarelli R. (2013). "Risk of future offense among probationers with co-occurring substance use and mental health disorders" *Community Mental Health Journal* doi:10.1007/s10597-013-9624-4 [PMID: 23765181] (published on-line early June 14, 2013)

Espinoza A, Malone K, Balyakina E, Fulda KG, Cardarelli R. (2014). "Incidental computer tomography radiologic findings through research participation in the North Texas Healthy Heart Study." *J Am Board Fam Med*. 27:314-320. (May – Jun). Doi:10.3122/jabfm.2014.03.130250 [PMID: 24808109].

Filipetto FA, Fulda KG, Holthusen AE, McKeithen TM, McFadden P. (2014). "The patient perspective on overactive bladder: a mixed-methods needs assessment." *BMC Family Practice*. 15:96. Doi:10.1186/1471-2296-15-96 [PMID:24885491].

Cardarelli R, Balyakina E, Malone K, Fulda KG, Ellison M, Sivernell R, Shabu T. (2014). "Suicide risk and mental health co-morbidities in a community-dwelling probationer population." *Community Mental Health Journal*. doi:10.1007/s10597-014-9771-2 [PMID:] (published on-line July 29, 2014)

PRESENTATIONS

Fulda KG, Kurian AK, Moerbe MM, Balyakina, E. (September 2013). "Paternal race/ethnicity and very low birth weight among women in Tarrant County, TX 2006-2010." 12th Annual Tarrant County Infant Mortality Summit: poster presentation: Fort Worth, TX.

Fulda KG, Franks S, Proffitt Leyva R, Habiba N, Bowman WP, Lee M, Halliday K, Lane L, Marshall H, Espinoza A. (November 2013). "Relationship between waist to hip circumference and metabolic risk factors in Mexican American children 10-14 years." 2013 Annual Scientific Meeting of the Obesity Society; poster presentation: Atlanta, GA.

Stone CK, Trammell RH, Fulda KG, Smith ML. (March 2014). "Changing health behaviors in first year medical students a pre- and post- analysis." 2014 AAO Convocation: poster presentation: Colorado Springs, CO. 2nd place winner for the AAO Louisa Burns Osteopathic Research Committee (LBORC)

Proffitt Leyva R, Fulda K, Retana J, Franks S. (Jun 2014). "The association between acculturation and risk for type 2 diabetes in Mexican-American children and adolescents." JPS Research Appreciation Day. Poster presentation; Fort Worth, TX. Second place oral presentation winner – presented by R. Proffitt Leyva

Lee M, Fulda K, Ramirez R, Proffitt Leyva R, Franks S, Espinoza A. (June 2014). "Parent's perceptions of neighborhood safety and risk of type 2 diabetes in Mexican American children and adolescents." JPS Research Appreciation Day. Poster presentation; Fort Worth, TX.

Cardarelli R, Espinoza A, Fulda KG. (November 2014). "Incidental Computer Tomography Radiologic Findings through Research Participation in the North Texas Healthy Heart Study." North American Primary Care Research Group Annual Meeting, accepted for oral presentation; New York, NY.

Fulda K, Halliday K, Kasehagen L. (November 2014). "Transition to adult services for youth with special health care needs." 142nd APHA Annual Meeting and Exposition, accepted for poster presentation; New Orleans, LA.

Fernando S, Fulda K, Franks S, Bowman W, Shah D, Proffitt Leyva R, Bawa B, Habiba N. (November 2014). "Comparison of body mass index and percent body fat on risk factors for type 2 diabetes mellitus in children aged 10-14." 142nd APHA Annual Meeting and Exposition, accepted for oral presentation; New Orleans, LA.

MEMBER HIGHLIGHT: KEVIN CUNNINGHAM, DO



Alan Mickish, MD; Michelle Escobedo, FNP; Kevin Cunningham, DO

The B&W Clinic was established in 1958 and stands for the names of the two doctors that started the clinic, Dr. Bulgren, M.D. and Dr. Westbrook, M.D. The clinic used to be located in downtown Eastland at the top of one of the old bank buildings. In 1973, the clinic moved to its present location next to Eastland Memorial Hospital in a 5,000 sq. ft building. The current clinical staff includes Kevin Cunningham, DO, Alan Mickish, MD, and Michelle Escobedo, FNP. The B&W clinic is one of three medical clinics in Eastland that serve a rural population of 20,000, and the clinicians also provide in-house services at Eastland Memorial Hospital. Twenty percent of Eastland County is considered indigent, and it is considered a medically underserved area.

Since 2008, the B&W Clinic has worked with UNTHSC and their Rural Osteopathic Medical Education (ROME) program to help promote rural health amongst medical students. This has been a great relationship as the students, the medical staff, and the patients all tend to benefit and enjoy each other. This relationship culminated this year when they had two ROME students graduate and leave for residencies in both Family Medicine and in General Surgery.

In 2010, after two mission trips to Haiti, following the January 10th earthquake, Dr. Cunningham realized that rural medicine and global health were very similar. Both fields are trying to provide quality healthcare with a low availability of resources. Many rural areas consist of large geographic areas, low numbers of healthcare providers, and higher proportions of poorer constituents. With this realization, Dr. Cunningham turned to public health and began to look at areas in Eastland County that were really bothersome. Since then, they have created a childhood obesity program, and indigent clinic, and the hope of opening a maternity clinic with outside specialists in August.

Dr. Cunningham feels that rural medicine has been challenging, but it also is very fulfilling. At the B&W Clinic, they strive to build that personal relationship one can develop with their medical provider while bringing quality healthcare to their rural population. Dr. Cunningham has been at the B&W Clinic since 2007 and is currently a Masters of Public Health student at Johns Hopkins Bloomberg School of Public Health studying global health. He has traveled to Mexico, Haiti, Zambia, and Ecuador working with rural impoverished populations. Prior to 2007, he completed a family medicine residency at the John Peter Smith Hospital in Fort Worth and obtained his medical degree from UNTHSC-TCOM in 2004. He earned a Masters in Science from Texas Tech University in Clinical Exercise Physiology in 1994 and graduated with a Bachelors of Science in Biology from Tarleton State University in 1992. Dr. Cunningham is married to his wonderful wife, Jenny, and has two children.

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SCIENCE CENTER

TEXAS PREVENTION INSTITUTE
PRIMARY CARE RESEARCH CENTER

MISSION

Improving the health of Texas citizens through interdisciplinary primary care and public health service, research, and education.

VISION

Healthy Texans through innovative primary care and public health research.