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PRIMARY CARE RESEARCH

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Journal Overview

The Division of Research felt it was important to create a forum for our Department to distribute information to one another about the on-goings in family medicine. The goal of the journal is to ...

- Promote professional writing opportunity for the faculty, staff and trainees
- Promote discussions of innovative primary care ideas
- Promote collegially among the department
- Promote collaboration among the department and others outside the department
- Promote ideas for grant to increase our education and research funding
- Increase visibility of Family Medicine
- Increase support for clinical trials
- Increase awareness of our training programs
- Increase involvement of faculty, staff and trainees in education and research

This is the beginning of what hopes to be a showcase for the Department of Family Medicine to display to others the various activities that are on going within this department. Keep in mind this is a work in progress and as with everything it can and will be improved upon. Division of Research looks forward to creating something that all can be proud and welcomes suggestions.

Case Report

The faculty, resident, student or staff should use the following format to submit a case report to *The Primary Care Research Journal*.

1. Word limit 750 words
2. AMA or APA Format
3. Word Document
4. Use generic names for all medications
5. No patient identifiers may be used
6. Sections

- Abstract
- Patient Presentation
- Literature Review
- Discussion
- Conclusion
- Citations

Review Articles: *The faculty, resident, student or staff should use the following format to submit a review article to the Family Medicine Research Journal.*

1. Word limit 1,500 words
2. AMA or APA Format
3. Word Document
4. Use generic names for all medications

Letters: *The faculty, resident, student or staff should use the following format to submit a letter to the Family Medicine Research Journal.*

1. Word limit 500 words
2. AMA or APA Format
3. Word Document

Editor's Corner

In this issue of the *Primary Care Research Journal*, we look ahead into a busy 2008 year. Our agenda is full with projects, grant writing, manuscript preparation, engaging our communities, and fostering our relationships with new and established partners throughout the DFW Metroplex. The fact that so many organizations are collaborating with a common goal to improve the health of our communities is humbling. We already have several items in the pipeline for 2008. First, we will have the official kick-off of the Primary Care Research Institute (PCRI) in early 2008 which will also hold its first meeting with its Executive Advisory Board to establish its strategic map and bylaws. Next, we are renewing memberships (and inviting new members) of the NorTex Community Advisory Board. We are also kicking off several studies. We have received funding from Pfizer Pharmaceuticals to conduct the first official NorTex needs assessment which will establish current needs in the delivery of care by physicians of the network. Next, we are kicking off the NIH funded "North Texas Healthy Heart II" study to continue our quest to better understand cardiovascular disparities in our country. We are excited to have received a contract from the Moncrief Cancer Foundation to conduct a study assessing the impact of cancer screening by primary care physicians using an educational DVD intervention. In

addition, we are kicking off our NIH/EXPORT Center funded Pediatric Asthma pilot study with our collaborators, Cook Children's Health System. We will also be implementing the NorTex Registry Project to establish a registry of potential participants for future NorTex studies. This project will have a dramatic impact on recruitment and completing studies in a timely fashion.

While these projects are in progress, we will be busy breaking new ground for future collaborative endeavors with our partners at Parkland Health & Hospital and UT Southwestern Department of Clinical Sciences.

To succeed in these endeavors, the PCRI/ NorTex is excited to bring new members to our team. Kimberly Fulda, DrPH joins us as the new Assistant Director of the PCRI/NorTex whose biostatistical expertise and leadership will ensure all activities are conducted at the highest caliber. In addition, we are pleased to have Lorna Brooks join us as the new research coordinator for the North Texas Healthy Heart II study. Anna Espinoza, MD was promoted to the Senior Project Coordinator position for the PCRI/NorTex who will have oversight of all research coordinators and assistants. Lee Ann Cunningham was named as the PCRI/ NorTex Administrative Coordinator whose oversight on administrative functions, including PCRI Grand Rounds, will ensure the PCRI's success.

Lastly, we were delighted to have

Editor's Corner
(Continued)

conducted our first Grand Rounds of the PCRI. Dr Katz came to UNTHSC to speak on the Management of Hypertension for Primary Care Physicians. There were over 50 people who attended the program and we would like to give Lee Ann Cunningham a special "thank you" for organizing this event in such short time period!

As we can see, progress is being made to ensure the PCRI/NorTex is on a road to improve the health of Texas communities by conducting collaborative research. We are excited about the future and we want to make sure all of you are part of it!!



Roberto Cardarelli, DO, MPH, FAFAP
Co-Editor
Primary Care Research Journal
Director
PCRI/NorTex

WELCOME NEWEST FACULTY & STAFF MEMBERS



Dr. Kimberly Fulda joins UNTHSC's Primary Care Research Institute as Assistant Director

Kimberly Fulda, DrPH, has joined the University of North Texas Health Science Center as Assistant Director of the Primary Care Research Institute/NorTex and Assistant Professor for the Department of Family & Community Medicine.

Prior to joining the Primary Care Research Institute and Department of Family & Community Medicine, Dr. Fulda was employed as a Research Project Manager in the Osteopathic Research Center and then as a Biostatistician in the Division of Epidemiology and Health Information at Tarrant County Public Health. While employed at Tarrant County Public Health, Dr. Fulda remained an adjunct professor for the University and served on several UNTHSC student thesis committees. Her association with the University has played an integral part in various research modules.

Dr. Fulda earned her B.S. in Biomedical Science from Texas A & M University in 1998 before becoming a student at the University of North Texas Health Science Center's School of Public Health. Through her studies at UNTHSC, she has earned a M.P.H. in Epidemiology in 2001 as well as a Dr.P.H. in Clinical Research 2006.

Dr. Fulda brings to the PCRI/NorTex Division a keen interest in children's health and experience with health disparities research. Welcome, Dr. Fulda, the University as well as the PCRI/NorTex look forward to working with you.

Also Help Us Welcome...



Lorna Brooks joins UNTHSC's Primary Care Research Institute as Research Coordinator

Ms. Lorna Brooks is the newest staff member to join the PCRI/NorTex at the University of North Texas Health Science Center at Fort Worth. She was recruited to the Division and began work for the PCRI in late November 2007.

Prior to her current appointment as the Research Coordinator for the Primary Care Research Insti-

WELCOME NEWEST FACULTY & STAFF MEMBERS—CONTINUED

with her primary focus being the coordination and active implementation of the North Texas Health Heart Study Phase II research module, Lorna served as the academic coordinator for the Department of Family & Community Medicine's Division of Rural Medicine as well as prior staffer for the Department of Manipulative Medicine.

Despite being actively involved in academic endeavors most of her professional career with the University and TCOM, Lorna is eager to embrace a challenging career change and get more involved in the area of research and health disparities. In her new position, Lorna brings excellent organizational skills, attention to detail, and a comprehensive background in the basic sciences.

Lorna is a long-time resident in the Fort Worth community and lives with her husband, numerous cats, and the family dog. Welcome, Lorna Brooks, the PRCI/NorTex is glad to have you as our newest staff member.

THE NORTH TEXAS PRIMARY CARE REGISTRY PROJECT (NRP) SOON TO LAUNCH

The Primary Care Research Institute & NorTex will soon be launching a new project, the North Texas Primary Care Registry Project (NRP). The mission of this project is to gain knowledge about the North Texas community's health in order to design projects that will increase the quality of health and improve community education. This will be achieved by developing and maintaining a database of individuals who may be contacted for future studies. This voluntary registry will make available a large and diverse pool of potential study participants who have provided information for us to contact them for future research opportunities.

NorTex is a collaboration of over 100 clinics in North Texas that conducts research items important to primary care, public health, and the community. Currently we are working in the areas of heart disease, asthma, HIV, and cancer prevention, among others. A database of potential study participants allows us to assess the feasibility in planning for future projects, demonstrate an accessible participant population for research grants, assess the demographic distribution of patients served by NorTex member clinics, and most importantly, to quickly identify and recruit participants into studies. Since the average length of time for incorporating research findings into clinical practice and health policy is approximately 10 years¹, the ability to quickly and efficiently recruit and complete studies is a strategic move to shorten the implementation of research knowledge into clinical practice. The NRP will be a 100% on-going voluntary registry that is used only for NorTex related purposes.

Roberto Cardarelli, DO, MPH, the chief of the Division of Research in Family Medicine, and founder and director of the North Texas Primary Care Practice-Based Research Network, will be the principal investigator for this project.

Patients of NorTex member clinics/organizations will be recruited to join the registry by completing a card that will be handed to them by front desk personnel at each NorTex member clinic as they are checking in for their clinic appointment. These 2-sided cards have information about the NRP, potential risks, and study personnel contact information. The card clearly explains that by filling it out, it gives us permission to contact the participant about future NorTex related studies and activities. The other side of the card collects their contact information, demographics, medical histories, and research interests. Furthermore, the card explains that the NRP is completely voluntary and does not affect the care they receive at their clinic. This will allow us to contact potential participants for NorTex related research projects and activities, but will not allow us to enroll anyone for any particular project. In addition, participants are able to withdraw from the registry at any time.

THE NORTH TEXAS PRIMARY CARE REGISTRY PROJECT (NRP) SOON TO LAUNCH — CONTINUED

Even though the NRP will be an on-going registry with no set maximum sample size, our goal is to recruit at least 10,000 individuals. The study will include male and female adult participants over the age of 18 from all race and ethnic backgrounds.

The NRP will include a diverse population of individuals in research studies that can better help us to understand causes of disease and develop effective treatments. More importantly, this project will allow us to obtain accurate estimates of disease distribution for the North Texas population and to quickly and efficiently identify the needs of the community.



Project Transform: Mental Health Service Delivery in North Texas—By Deepak Prabhakar

Project Transform is a venture that seeks to move the current system of mental health service delivery toward a unified public health model serving the needs of all persons in North Texas. The project focuses on the seven-county area of North Texas served by NorthSTAR, but it is not limited to persons receiving services funded by NorthSTAR. Adults who have or are at risk of having mental illness and children and adolescents that have or are at risk of having emotional or behavioral disturbances are included in the scope of this project. These individuals represent all socioeconomic positions, ethnicities, ages, and levels of severity of illness and vulnerability. Mental health issues are broadly defined and include not only the traditional mental health problems but also substance

use disorders. Thus, the corollary definition of “mental health services” is expansive, encompassing not only mental health and substance abuse services but other services that are essential to meet the needs of persons with mental illness. Other services within the scope of the project’s mental health services definition include medical, housing, employment, and social support issues that must be addressed to respond adequately to mental health problems. The objective of Project Transform is to transform the delivery of mental health services in North Texas to a model that is evidence-based, consumer-driven, culturally congruent, and recovery-focused in order to achieve integration, coordination, and improvement of services across the current system.

The Center for Community Health, as the health research arm of the J. McDonald Williams Institute, was contracted to complete the needs assessment for Project Transform. Deepak Prabhakar, Research Associate at the Center for Community Health, is leading the needs assessment. In addition, Raquel Hampton, PhD, Assistant Professor in the Department of Epidemiology, University of North Texas Health Science Center, is providing consultation for the project. The Center recently published the first document associated with Project Transform titled *Project Transform Epidemiologic Profile: Assessment of Mental Health in Dallas County*. This document can be accessed by visiting the Publications section of the Center for Community Health website (www.centerforcommunityhealth.org)



NORTEX PROJECTS

This list represents ongoing and upcoming projects specifically considered “NorTex” studies. However, other projects that are also occurring under the Primary Care Research Institute at the UNT Health Science Center which NorTex is part of. For example, we are currently conducting a descriptive study on Adult ADD in the probationer population (PI: Dr. Christopher Mann).

The North Texas Healthy Heart Study

The North Texas Healthy Heart Study (NIH/NCMHD 1-P20-MD001633-010003; principal investigator: R Cardarelli, project co-principal investigator) assesses the relationship of various psychosocial factors and cardiovascular physiologic markers to better understand potential contributors to cardiovascular health disparities. Participants undergo an extensive interview, body measurements, blood testing, and multi-slice computed tomography of the heart to obtain calcium scores. Phase 1 of the study recruited 200 participants in only 18 weeks. This success resulted in additional funding that was received in January 2007 to recruit another 200 participants. The second phase commenced at the end of January 2007 and in only 4 weeks, 100 of the 200 needed participants have been recruited. The recruitment rates averaged over 90% for both phases of the study. Currently, manuscripts are being prepared and conference abstracts have been submitted. Investigators have already presented data at three conferences (23rd Annual Frontiers of Cardiology symposium, the Agency for Healthcare Research and Quality Practice-Based Research Networks Annual Meeting, and the American Medical Association Medical Student Conference). We recently received additional funding from NIH to continue our study for another 3 years.

NorTex has received additional funding from NIH to conduct the North Texas Healthy Heart II study which will further explore how psychosocial stressors impact

coronary artery plaque destabilization. This study started January 2008 and plans to recruit another 200 participants and re-invite participants from the initial cohort in years 2 and 3 of the study.

The relationship of visceral fat to lipid and inflammatory cardiovascular risk factors

This sub-study of the North Texas Healthy Heart Study (UNTHSC EXPORT Center Intramural grant; principal investigator: J Carroll) assesses racial/ethnic differences in central fat distribution and the relationship to lipid and inflammatory cardiovascular risk factors. In addition to the testing described above, participants also undergo an abdominal computed tomography to obtain internal adipose measurements. The recruitment successes mirror those described above in the North Texas Healthy Heart Study.

Communities, Communication, and Health Study

This study assessed the impact of interpersonal processes of care on adherence to highly active antiretroviral therapy (HAART) regimens and perceived general health. Significant disparities exist in HIV/AIDS morbidity and mortality despite an overall decline in the past decade.⁴⁵⁻⁴⁷ Some have postulated that the physician-patient relationship may influence patient behavior, such as adherence to prescribed therapy, and impact health.⁴⁵ The preliminary study results suggest an association between interpersonal processes of care domains and perceived general health. A total of 110 participants with HIV and/or AIDS were recruited from an affiliated NorTex clinic. All participants underwent an extensive interview using validated instruments. Health status was ascertained using a self-reported single-item indicator that has been shown to be a reliable predictor of future population mortality: “In general, would you say your health is: excellent, very good, good, fair, or poor?”⁴⁸ In addition, the Interpersonal Processes of

Care instrument was used to assess various domains of the physician-patient encounter from the patient's perspective.⁴⁹ The study is a collaborative project with the Tarrant County Public Health Department. It recruited 105 participants in only 20 weeks. Currently, all data are being analyzed and plans are being made for conference presentations, manuscript development, and grant applications

The Cancer Education Initiative Project

This study is funded by the Moncrief Cancer Center with the aim to conduct a clustered randomized controlled trial in assessing the impact of an educational DVD intervention which reviews the most current cancer screening guidelines. This project will involve 10 clinics and 300 medical chart reviews.

Does race explain differences in asthma prevalence among children in Tarrant County Texas?

The first NorTex study utilizing the newly established collaboration with Cook Children's Health Network is underway. The study " is led by three investigators: Bruce Benz, Ph.D., Professor of Biology, Texas Wesleyan University, Harlan P. Jones, Ph.D., Assistant Professor of Immunology, University of North Texas Health Science Center, and Nuha A. Lackan, Ph.D., Assistant Professor of Health Management & Policy, University of North Texas Health Science Center. The study is supported by the University of North Texas Health Science Center's Center for Health Disparities (Project EXPORT). This center, supported by the National Center for Minority Health and Health Disparities (P20-MD001633), supported a training fellowship which resulted in this interdisciplinary research project. The study proposes to examine the association between patient race and asthma among children in Tarrant County. The study is translational, meaning it incorporates diverse types of research methodologies. This study will include a population-based epidemiological component and a patient-based individual component. The epidemiological component of the study will examine characteristics of patients' environments including data from the EPA,

Tarrant County Public Health Department, and the U.S. Census Bureau. The individual component of the study will examine patient characteristics obtained from survey questionnaires, blood samples, dust samples from patients' homes and genetic studies.

NorTex Needs Assessment

NorTex has secured funding from Pfizer Pharmaceuticals to conduct a needs assessment among its clinics to establish the health care needs of its population. Each clinician will be asked to review 5 random charts to assess practice patterns in cardiovascular care, immunizations, and cancer screening. The goal is to recruit 250 clinicians to participate in this study. Each clinician will be reimbursed for their time and effort.

North Texas Participant Registry Project (NRP)

This project will aim to involve all NorTex clinics to enroll patients into the NRP. This voluntary project will have front desk personnel hand out 3X5 cards to all patients checking in for their appointments. This card will have detailed information about the project on one side of the project and collect demographic and medical histories on the other side. Patients will then give the cards back to the front desk personnel if they decide to participate. This information will provide NorTex researchers the ability to contact potentially eligible participants for future projects. We hope to grow this database to 10,000 in the first several years.

The Clinical Demographic Survey

This study (principal investigator: R Cardarelli) involves ongoing collection of demographic data and site information for each NorTex member and member clinic. These data allow us to query information about members and clinics that may have an interest in and the resources to participate in any proposed study.

FUTURE STUDIES

<u>Project title</u>	<u>Investigators</u>	<u>Sponsor</u>	<u>Anticipated submission date</u>
Clinical Translational Service Award – NorTex as partner	Milton Packer, MD (PI) R. Cardarelli (NorTex)	NIH	TBD/ 5 year grant
Spinal Manipulation and Chronic Low Back Pain: A NorTex PBRN Cohort Study	Cardarelli R Licciardone JC Hilsenrath P	NIH (R21)	\$574,629 (November 2007)
NorTex Health Disparities Conference	Cardarelli R.	AHRQ	\$38,369/ 1 year (Dec 2007)
Racism and Blood Pressure Control Among Hispanics	Cardarelli R Cardarelli K Nejtek V	NIH (R21)	\$365,925 (Jan-Mar 2008)
Patient Communication, Psychosocial Factors, and Mammogram Screening Among Asymptomatic African American Women	Cardarelli R Cardarelli K Lurie S	Komen Foundation	\$298,828 (Jan/Feb 2008)

The **Evi-** Jour-

A Publication from the CENTER for Evidence-Based Medicine

Primary Care Research Institute

Department of Family Medicine

Volume 3 Issue 1

January/February/March 2007

What is Evidence-based medicine?

Evidence-based medicine (EBM) is the integration of best research evidence with clinical expertise and patient values.¹

Why the sudden interest?

EBM has been around for a long time. It was called "Clinical Epidemiology" prior to the renaming in the early 1990's. Sackett et al¹ state four realizations have occurred that spurred the sudden interest. (1) Daily need for valid information, (2) the inadequacy of traditional sources of information, i.e. textbooks, (3) the disparity between diagnostics skills and clinical judgment, and (4) the inability to afford more than a few seconds per patient for finding and assimilating the evidence.

How do you actually practice EBM?

Develop an answerable question.

Track down the best evidence.

Critically appraise the evidence.

Integrate the findings with your clinical expertise and the patient's values, biology, and specific needs.

Evaluate steps 1-4 to improve them for the next time.

Sackett DL, Straus SE, Richardson WS, Rosenberg W, Haynes RB, eds. Evidence-Based Medicine: How to practice and teach EBM. 2nd ed. Edinburgh: Churchill Livingstone; 2001.

Current Evidence from Journals

Q: Can testosterone supplementation lead to improved functional status and cognition in older men?

A: “Testosterone supplementation during 6 months to older men with a low normal testosterone concentration did not affect functional status or cognition but increased lean body mass and had mixed metabolic effects”¹

¹ Emmelot-Vonk MH, Verhaar HJJ, Nakhai Pour HR, et. al. Effect of testosterone supplementation on functional mobility, cognition, and other parameters in older men. *JAMA*. 2008; 299(1): 39-52.

Q: In US emergency departments, has opioid prescribing increased, and if so, are there differences in the frequency of opioid prescribing related to the patient’s racial/ethnic group?

A: “Opioid prescribing for patients making a pain-related visit to the emergency department increased after national quality improvement initiatives in the late 1990s, but difference in opioid prescribing by race/ethnicity have not diminished.”²

² Pletcher MJ, Kertesz SG, Kohn MA, Gonzales R. Trends in Opioid prescribing by race/ethnicity for patients seeking care in US emergency departments. *JAMA*. 2008; 299(1): 70-78.

Q: In adults with suspected coronary artery disease and a normal electrocardiogram, can a clinical research tool be used to predict long term survival after exercise treadmill testing?

A: “A simple nomogram based on easily obtained pretest and exercise test variables predicted all-cause mortality in adults with suspected coronary artery disease and normal electrocardiograms.”³

³ Lauer MS, Pothier CE, Magid DJ, et. al. An externally validated model for predicting long-term survival after exercise treadmill testing in patients with suspected coronary artery disease and a normal electrocardiogram. *Ann Intern Med*. 2007; 147: 821-828.

Q: In a population of previously uninsured adults, what effect does acquiring Medicare coverage have on their health?

A: “Acquisition of Medicare coverage was associated with improved trends in self-reported health for previously uninsured adults, particularly those with cardiovascular disease or diabetes.”⁴

⁴ McWilliams JM, Meara E, Zaslavsky AM, Ayanian JZ. Health of previously uninsured adults after acquiring medicare coverage. *JAMA*. 2007; 298(24): 2886-2894.

Q: In older adults, are there more emergency department visits for adverse reactions from Beers criteria medication than from other medications?

A: “Compared with other medications, Beers criteria medications caused low numbers of and few risks for emergency department visits for adverse events.”⁵

⁵ Budnitz DS, Shehab N, Kegler SR, Richards CL. Medication use leading to emergency department visits for adverse drug events in older adults. *Ann Intern Med*. 2007; 147: 755-765.

Current Evidence from Journals*The Evidence Journal*

January 2008

Q: In patients with chronic kidney disease, can vitamin D therapy improve biochemical markers of mineral metabolism?

A: “Vitamin D compounds do not consistently reduce PTH levels, and beneficial effects on patient-level outcomes are unproven. The value of vitamin D treatment for people with chronic kidney disease remains uncertain.”⁶

⁶ Palmer SC, McGregor DO, Macaskill P, et al. Meta-analysis: Vitamin D compounds in chronic kidney disease. *Ann Intern Med.* 2007; 147: 840-853.

The staff and faculty members of the Department of Family Medicine’s Division of Research/NorTex and the Primary Care Research Institute have compiled this current issue of the Primary Care Research Journal for your perusal. We hope that you enjoy reading this publication.

This publication was designed and initiated through the efforts and ideas of dedicated staff, faculty, students, and individual associates who are involved with the Division of Research/NorTex—The North Texas Primary Care Practice-Based Research Network and the Primary Care Research Institute.

Enjoy...

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