

The Primary Care Research Journal

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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-going 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

We celebrated the 1st year anniversary of the Primary Care Research Institute on September 1st, 2008 and reflected upon our accomplishments during this past year. The first year for most organizations is a critical time that is accompanied by significant risk. This risk is not only financial, but also the vulnerability of being visible and heard when starting. It is still expected for an organization to deliver regardless of the stage of development it finds itself in. While superficial deliverables are easily measured in grants and publications, true success is measured from other intangibles. The PCRI is proud to report that we not only succeeded in hard numbers, such as the \$5 million plus in grants we submitted, but also in our collaboration and growth inside and outside the University of North Texas Health Science Center. Our facilities grew to make room for 6 research coordinators and an 8-computer research lab. The number of North Texas Primary Care Research Network (NorTex) member clinics has grown to over 130 clinics. The PCRI formed its Executive Advisory Board, representing over 6 North Texas organizations, held 2 meetings, and has developed its bylaws with voted approval. We even hosted our grand celebration back in February 2008 and 2 Grand Rounds. Our NorTex boards continue to serve a vital role in the implementation of our research projects. In fact, a new chair of the Community Advisory Board was announced, welcoming Dr. Anita

Kurian. There have been numerous accomplishments in our first year; a feat that we are very proud of. An abbreviated list is provided in this issue of the *Journal*. I personally want to acknowledge the incredible team that has made these accomplishments possible including Dr. Kimberly Fulda (Assistant Director of the PCRI), Dr. Anna Espinoza (Senior Project Coordinator), Lee Ann Cunningham (Administrative Coordinator of the PCRI), all the research coordinators, research associates, and research assistants.

The next year also has its challenges – improve upon the first year accomplishments. Our endeavor is simple; continue doing research that matters in an interdisciplinary and collaborative manner. In fact, we are determined to make this year “member-centric”. We are embarking on a (re)introduction of NorTex campaign for new and established members. We will be hosting Meet-and-Greets after each grand rounds lecture. Moreover, we are planning the first NorTex Convocation of Practice conference to be held in Spring 2009. This conference will revolve around NorTex members and study participants and include presentations on the results of NorTex studies and research methods talks. This conference will be an interactive symposium in which NorTex members will have the opportunity to share ideas for new study directions. Please look for future

Editor's Corner (Cont.) PCRI/NorTex News

announcements to the conference (Did I mention NorTex members are free and receive 1A CME credit?)

We always have an open door policy and look for ways to improve our communication and collaboration. We are eager to hear from you and hope you will contact us for any of your primary care research inquiries.



Roberto Cardarelli, DO, MPH

Co-Editor
Primary Care Research Journal
Executive Director
PCRI/NorTex
Associate Professor
UNTHSC at Fort Worth/TCOM

WELCOME NEWEST PCRI/NORTEX STAFF MEMBER



Kristen Hahn joins PCRI research team as Needs Assessment Study (NAS) Research Coordinator

Please help us welcome Kristen Hahn as the newest recruit to be named as Research Coordinator for the Primary Care Research Institute/NorTex Division of Research.

Kristen joined the team in June 2008, bringing with her varied interests in the research field. Kristen's area of expertise will focus on the Needs Assessment Study (NAS) that is being coordinated between the Pfizer Corporation and the PCRI/NorTex.

Originally from Old Lyme, CT, Kristen received her BA in Biological Sciences at Cornell University and went on to obtain her MPH in Epidemiology from our UNTHSC campus. Prior to her employment at UNTHSC in the University's PCRI/NorTex Division of Research, Kristen was an MKITS fellow who taught the 4th grade science class at Manuel Jara Elementary as well as an Epidemiology Teaching Assistant at UNTHSC, and Vice President of the Public Health Student Association.

Kristen brings with her to the PCRI research team a host of excellent ideas, great organizational skills, and exceptional attention to detail as well as an intense interest in research. She can be at 817-735-5428 or at e-mail address

khahn@hsc.unt.edu.

Primary Care Research Institute Blog Ready!

We have developed a new blog for PCRI and NorTex members to interact and communicate on some important primary care related topics. Two discussions have been initiated by PCRI staff to hopefully stimulate dialogue that is important to primary care clinicians and researchers. Anyone can initiate topics for discussion and join in ongoing discussions. The PCRI blog will also be used to disseminate preliminary results related to PCRI and NorTex studies, post pivotal primary care research published in the literature, and provides links to primary care organizations and resources. We are just starting to let everyone know that the blog is available. Please visit it and start and/or join a discussion!

PCRI Blog: <http://pcri.blogspot.com/>

HEALTHY HEART STUDY

We are proud to report that processing of repeat Healthy Heart I participants is in full swing. To date, 93 repeat subjects, out of our goal of 230 past participants, have been processed. These subjects go through the entire protocol of the

study, just as the 200 Healthy Heart II participants did. Moreover, additional surveys were added to the protocol:

- Food Questionnaire
- Sleep Questionnaire
- Pregnancy Questionnaire

Also, the second issue of the North Texas Healthy Heart newsletter has been mailed to both cohorts of the study.

Follow-up calls for Healthy Heart I participants are on schedule. We will begin with the same follow-up call schedule for Healthy Heart II participants starting January 2009.

NRP

Participant recruitment is known to be one of the most time-consuming processes in conducting research studies; however, human research can not be carried out without voluntary participants. In an effort to efficiently recruit, the PCRI launched the NorTex Registry Project (NRP) in April 2008. This voluntary registry will enroll participants from all current and future NorTex member clinics/organizations with the aim to build a registry to expand research opportunities for the Primary Care Research Institute and NorTex. The NRP allows access to a large and diverse pool of potential study participants for future projects. The study protocol has been submitted to 2 different Institutional Review Boards (IRB): UNT and JPS IRB and both have been approved. Thus far we have 6 NorTex member clinics participating. The NRP is currently under review at UT Southwestern IRB and upon approval Parkland Health and Hospital System/Community Oriented Primary Care Centers will be recruited for the NRP. Individuals who are interested in participating in future studies are invited to provide demographic and general health information, as well as health topics of interest by means of small cards. In addition to placing the cards in participating clinics, we are also using a more active method by mailing the cards to all current and past NorTex studies participants. Since the inception of the project, 315

participants have registered through the 6 participating NorTex clinics. Current participating clinics include 3 UNT clinics, 2 JPS clinics and 1 private family practice clinic that recently joined NorTex. In order to increase the recruitment rate and build a larger and resourceful registry, clinic recruitment is still ongoing. If interested in participating in the NRP project, please feel free to contact us at 817-735-2625.

NORTEX NEEDS ASSESSMENT STUDY (NAS)

The NorTex Needs Assessment Study (NAS) is designed to evaluate the practice patterns among primary care physicians in the North Texas area. As of today, the study is in full swing at Cook Children's, UNTHSC/Private clinics, and JPS. It is in process and pending IRB approval at Parkland Health and Hospital System.

Overall, there has been great interest in the study. In the past 10 weeks that the study has been active we have consented 43 physicians. Nineteen surveys have been completed and 61 chart reviews have been submitted. To keep the study on the right track, there are weekly task meetings to discuss study progression and meetings every three months with the co-investigators to discuss recruitment barriers and solutions. The goal is to recruit a total of 250 physicians by April, 2009. Provided that each physician completes the study, we will have a total of 1,250 chart reviews at the completion of the study.

FETAL INFANT MORTALITY REVIEW: THE NEXT STEP IN ADDRESSING INFANT MORTALITY IN TARRANT COUNTY

The infant mortality rate in Tarrant County has been increasing since 2000 and is currently at 7.5 deaths per 1000 live births. The Federal "Healthy People" goals for the nation call for a reduction in the national infant mortality rate to 4.5 per 1000 live births by 2010. An infant death is the death of a child anytime before the first birthday. Deaths in the first year of life may be further classified according to age as neonatal (first 28 days of life) and post neonatal (29 days to twelve

months). The infant mortality rate is calculated by dividing the number of infant deaths during a calendar year by the number of live births reported in the same year, expressed as the number of deaths per 1,000 births. In Tarrant County there are racial disparities in infant mortality with the Black population having twice the rate of the White and Hispanic populations (Tarrant County Public Health and Fort Worth Public Health, 2006).

Since the infant mortality rate is one of the most important indicators of the general level of health or well-being in a community, Tarrant County Public Health will be leading a newly formed organization charged with coordinating attempts to correct this disparity, the Fetal Infant Mortality Review (FIMR). Tarrant County Public Health has collaborated with the City of Fort Worth Public Health Department and the Tarrant County Infant Mortality Network to publish two reports: Report of Perinatal Periods of Risk (PPOR) in Tarrant County September 2005 and 2006. These reports describe the following information derived from 2001-2003 state and local statistics concerning infant mortality:

- There was an increase in the Texas infant mortality rate from 5.7 deaths per 1000 live births to 6.6 between 2000 and 2003.
- There was an increase in the Tarrant County infant mortality rate among Blacks from 12.6 to 16.1 between 2001-2003.
- Early gestational age and low birth weight are the primary cause of infant death in Tarrant County for all races and ethnicities.
- Blacks have a greater proportion of infant deaths (17.4%) due to Sudden Infant Death Syndrome (SIDS) than do Whites (11.7%) and Hispanics (11.6%).
- Women who reported having no prenatal care had an infant mortality rate of 25.3.
- Paradoxically, Black women with college education have a higher infant mortality rate than Black women with less education.

- The 2000-2002 PPOR analysis indicates maternal health and prematurity are primary indicators of infant mortality in Tarrant County, suggesting the critical role of preconception health and family planning in reducing infant mortality.

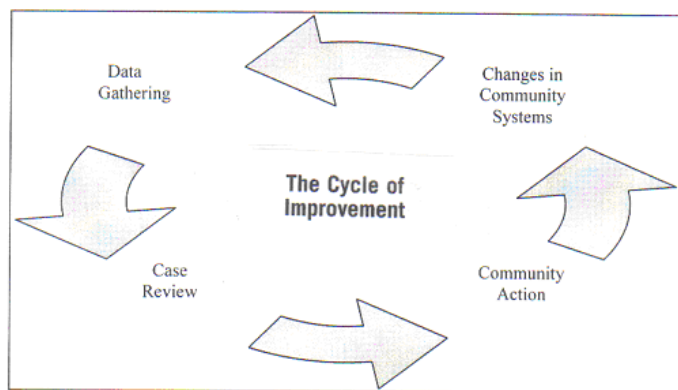
The Tarrant County FIMR project will be patterned after the national model NFIMR consisting of two community based groups; the Case Review Team (CRT) and a Community Action Team (CAT). The CRT and CAT each are composed of multidisciplinary team members that review and do a detailed analysis of de-identified infant deaths. The team will include a mix of professionals and representatives of various agencies that provide services or community resources for families in Tarrant County. The CRT is composed of experts in the following areas: public health such as WIC, local health departments, community health workers; human services providers such as Child Protective Services, and law enforcement officers; health care providers such as obstetricians, pediatricians, nurses, social workers, dentists, mental health and substance abuse counselors and registered dietitians. (Buckley, Koontz, & Casey, 1998, pp. 29-35).

Maternal and infant data is collected through a variety of sources including: maternal history; labor and delivery records; infant pre/post discharge records; home and environmental records; prenatal records; maternal hospitalization record; well and sick baby visits; infant ER and hospital readmissions; WIC and other social services; and interviews with the family, particularly the mother. A summary of the case is presented to the Case Review Team. The team identifies the issues that contributed to infant mortality in the individual cases, looks at trends over time, and makes recommendations for community changes as appropriate. Recommendations for changes in society will be forwarded to the Community Action Team (CAT) to help implement the recommendations. This team will be composed of a diverse group of community leaders, advocates, professionals, and consumers.

This group is responsible for the design and implementation of interventions to improve services systems and resources for women, infants, children, and families with the community (Buckley, Koontz, & Casey, 1998, pp. 39-55).

The FIMR process:

In addition, the FIMR is an action-oriented organization that helps close gaps in health care in hopes of preventing future infant losses. It is a voice for local families who have lost their babies. The FIMR is not about fault finding or placing blame. Rather, FIMR focuses on



broad recommendations to bring about better health care of women, children, and families (Buckley, Koontz, & Casey, 1998, pp. 3-4).

Currently, the only existing organization that addresses infant mortality is the Tarrant County Child Fatality Review Team that reviews deaths of children from birth to age 18. However, a fully functioning FIMR will provide a more in-depth review process for fetal and infant deaths. Texas law now gives Tarrant County Public Health the authority to establish a FIMR by providing immunity from subpoena and discovery to review team members in their review of the de-identified case material. The law also authorizes the review team access to medical records of fetal loss and to infant deaths records (West, Royce et al., 2007).

Tarrant County Public Health looks forward to the development of the FIMR in Tarrant County. Infant mortality is a community problem and requires the

contributions from persons throughout the county to help reduce the infant mortality rate. The FIMR findings will serve as a valuable piece to a complicated puzzle.

References

- Buckley, K. A., Koontz, A. M., & Casey, S. (1998). *Fetal and Infant Mortality Review Manual: A Guide for Communities*. Washington D.C.: The American College of Obstetricians and Gynecologists.
- National Center for Health Statistics. (2002). *NCHS Definitions*. Retrieved April 30, 2002 from <http://www.cdc.gov/nchs/dataawh/nchsdefs/livebirth.htm>.
- Tarrant County Public Health, City of Fort Worth Public Health Department, and the Tarrant County Infant Mortality Task Force. (2006). *Report of Perinatal Periods of Risk in Tarrant County*. Fort Worth: Tarrant County Public Health.
- West, Royce et al. (2007). Bill Analysis. *Texas Senate Bill 143*. Austin: Texas Legislature.

***Above informational literature on Fetal Infant Mortality Review was provided by Ann Salyer Caldwell, MPH, RD/LD, Associate Director, Tarrant County Health Department**

THE EXPENSE OF CARDIOVASCULAR DISEASE ON AMERICA'S HEALTHCARE SYSTEM

Introduction

According to the 1996 Medical Expenditure Survey Panel (MEPS), one of the most expensive conditions in the United States is cardiovascular disease (CVD) related to ischemic heart disease, arthropathies, and hypertension (Druss et al. 2002). The estimated numbers of conditions related to this disease are 3.4 million, costing the U.S. healthcare system \$21 billion dollars (Druss et al. 2002). As a

result, 70.1 million bed days were utilized and 21.8 work days were lost, which led to 638.3 thousand people impaired from their activities of daily living (ADL) and independent activities of daily living (IADL) (Druss et al. 2002). The results of Druss et al.'s research revealed that CVD was one of the fifteen highest-cost conditions, which comprised a portion of the 44.2 percent of the total U.S. health care spending in 1996. However, the authors did not propose any strategies by which this statistic could be reduced.

A lack of theory-driven literature exists on cardiovascular health. The examination of health-promoting lifestyle behaviors, differences in these behaviors by stress and other psychosocial mediators, and the extent to which perceived health status demographics explain health-promoting lifestyles has also been understudied (Hulme 2003). Research has shown that long-term, out of normal range values of certain biological markers (blood pressure, cortisol) lead to many possible chronic illnesses and conditions. Such conditions include atherosclerosis, hypertension, diabetes, myocardial infarction, and obesity (McEwen 2007; Allostatic load n.d.). The purpose of this paper is to outline the risk factors associated with cardiovascular disease in the U.S. population, how allostatic load theory (AL) explains such health outcomes, and how those factors contribute to the current healthcare expenditures. In addition, recommendations will be proposed to address ways in which the U.S. healthcare system can reduce its costs while improving the health of its citizens.

Background & Significance

Cardiovascular disease (CVD) is the nation's leading cause of mortality (Goodman et al 2005). This disease has a latent period early in life during which no signs and symptoms appear but often manifest during the adult years with serious adverse health outcomes. Social inequalities in cardiovascular disease exist and are pervasive, yet the process by which such inequalities accrue is not well understood (Goodman et al 2005). Mechanisms by which psychosocial risk factors such as stress and social class affect cardiovascular disease warrant further investigation, given that minority race and lower social class have been known to cause chronic stress (Lampert et al 2005).

Seeman (2001) proposed allostatic load as a new conceptualization of cumulative biological burden exacted on the body through attempts to adapt to life's demands. There are three main tenets by which this theoretical framework for cardiovascular health can be examined: 1) internal, i.e. biological processes, genes; 2) external, i.e. environment and social systems; and 3) psychosocial factors, i.e. stress, social support. These three tenets can serve as strategies to reduce costly cardiovascular health interventions in the following ways.

An understanding of a particular racial/ethnic group's genetic predisposition to cardiovascular disease will increase an understanding of certain risk factors associated with these health outcomes and healthcare access patterns. This understanding can be derived by examining the health outcomes and healthcare service utilization for that *group*. In addition, a participant survey can be utilized to determine if the findings regarding healthcare access and service utilization corroborate local, state, and/or national statistics.

Knowledge of particular ethnic/racial groups' genetic make-up and their beliefs, values, and attitudes regarding their environment and social systems will increase an understanding of certain environmental factors impacting health outcomes and healthcare access. The methodology by which this can be accomplished is by investigating the socio-historical background of healthcare and public health systems available to this ethnic group and then survey to verify whether attitudes, values and beliefs have changed in the area of health insurance, healthcare provider access, and patient satisfaction.

Knowledge of particular racial/ethnic groups' psychosocial risk factors for cardiovascular disease will increase an understanding of how to improve health outcomes. Such knowledge can be ascertained through questionnaires combined with physiological measures, e.g. interleukin-6 serum markers, coronary artery calcium scores, and serotonin levels to determine how these findings compare to previous studies that address psychosocial and physiological markers for cardiovascular disease.

Public Health Policy and Management Implications/ Recommendations

Current research shows that cardiovascular disease (CVD) is a disease process. Therefore, the cost associated with its treatment creates an economic burden on the healthcare system because of its associated cumulative risk and long-term, expensive treatment programs. The biological process of CVD as it progresses should lead health managers and policy makers to provide grant funds that research the traditional and emerging risk factors associated with this disease. In addition, health managers may appropriate a portion of their funds and personnel to prevention programs that inform patients of the risks and symptoms associated with cardiovascular disease. Other health management programs can address lifestyle behavioral changes in cardiovascular health. Although genes play a role in adverse health events, the behavior of the individual regarding food and exercise regimens in effect determine the overall, long-term outcomes of cardiovascular health.

Conclusion

Health is tied to one's health behavior and choices. Such choices can create a healthcare burden of financial costs due to the level of chronic conditions each patient presents to healthcare providers. Public health policies should be based on longitudinal, prospective cohort studies that test theoretical and biopathophysiological pathways of cardiovascular disease. Allostatic load takes into account the sociological and behavioral aspects affecting health and should be viewed as a theoretical means of qualifying the observed disease pathway. The role of healthcare cost should also be factored in as certain racial/ethnic groups may not have equal utilization of or financially accessible healthcare services. Research that examines the cost-effectiveness and burden on the healthcare system and ways in which costs can be cut for the consumer and the healthcare system merit further inquiry.

Future studies should utilize the findings in the literature to design an extensive population sample examining whether theories such as allostatic load functions as an outcome or a predictor of cardiovascular disease in U.S. health.

In addition, ongoing comparative effectiveness research on the best practices and cost-effective programs for cardiovascular disease treatment will help policymakers decide on the amount of funds warranted in this area of healthcare.

Finally, more research that promotes the use and improvement of theoretical models to develop multi-trait, multi-methodological explanations of health inequities will increase public health's knowledge and understanding of cardiovascular health interventions for improved health behaviors, health outcomes, and healthcare use.

References

- Druss, B.G., Marcus, S.C., Olfson, M., and Pincus, A. The most expensive medical conditions in America. *Health Affairs*. 2002; 21: 105-111.
- Hulme, P.A., Walker, S.N., Effle, K., Jorgensen, L., McGowan, M.G., Nelson, J.D., and Pratt, E.N. 2003. Health-promoting lifestyle behaviors of Spanish-speaking Hispanic adults. *Journal of Transcultural Nursing* 14: 244-54.
- McEwen, B.S. 2007. Physiology and neurobiology of stress and adaptation: Central role of the brain. *Physiology Review* 87: 873-904.
- Allostatic load. (n.d.) Retrieved Wednesday, September 10, 2008 from: http://www.colorado.edu/ibs/cupc/short_courses/biodemography/lectures/Goldman_II.pdf
- Goodman, E., McEwen, B.S., Huang, B., Dolan, L.M., and Adler, N.E. 2005. Social inequalities in biomarkers of cardiovascular risk in adolescence. *Psychosomatic Medicine* 67: 9-15.
- Seeman, T.E., McEwen, B.S., Rowe, J.W., and Singer, B.H. 2001. Allostatic load as a marker of cumulative biological risk: MacArthur studies of successful aging. Retrieved Wednesday, September 10, 2008 from: <http://www.pnas.org/cgi/content/abstract/98/8/4770>

- *The position paper on pages 6-8 was provided by Love Johnson, Research Associate PCRI/NorTex & Dr. Thaddeus Miller of UNTHSC*

PCRI YEAR 1 ACCOMPLISHMENTS

The Primary Care Research Institute has successfully completed its first year in existence. We are excited to share with our readers a list of our accomplishments. Please keep reading in order to view our successful accomplishments for 2008.

Scholarly Activities

- \$2,921,970.00 in grants submitted as PI
- \$2,445,614.00 in grants submitted as Co-I
- 6 publications in peer review journals
- 6 oral or poster presentations at conferences

NorTex Expansion

Efforts to expand NorTex membership began in February 2008. Since then:

- 285 academic and private clinics have been contacted by letter to join NorTex
- 19 clinics have been visited by PCRI staff
- 15 clinics have joined NorTex for a total of 135 NorTex clinic members

Building of Infrastructure

- Added 3 full time positions
- Began the NorTex Registry Project in February 2008, collected 315 cards to date
- Enhanced the data management system used by the PCRI
- Increased the number of NorTex affiliated clinics
- Updated and expanded the PCRI research computer lab to 8 stations

Participation in UT Southwestern CTSA - Clinical Translational Science Award

PCRI and NorTex Boards

- Executive Advisory Board for PCRI was formed. The first meeting was held February 2008. Members represent UNTHSC, Baylor, Cook Children's Hospital System, JPS Health System, Moncrief Cancer Center, Parkland Health & Hospital System, UT Southwestern Medical Center.
- PCRI Bylaws were constructed and approved by the Executive Advisory Board.
- NorTex Policy and Procedures were revised and approved by the NorTex Community Advisory Board and Scientific Review Board.

Partners with Active Research Collaborations

- External – Baylor, Cook Children's Hospital System, JPS Health System, John Menchaca, MD, Parkland Health & Hospital System, Tarrant County Public Health, Philip Shie, DO (Kaiser Permanente), Tarrant County Medical Examiners Office, Texas Wesleyan University, Harvard University, UT Southwestern Medical Center
- Internal – Biostatistics, Cell Biology and Genetics, Center for Community Health, Epidemiology, Health Management and Policy, Integrative Physiology, Internal Medicine, Osteopathic Research Center, Pharmacology and Neuroscience, Professional and Continuing Education, Social and Behavioral Sciences

PCRI Kickoff Celebration

- PCRI Kickoff Celebration held on February 26, 2008
- Attended by approximately 100 internal and external collaborators
- Held in conjunction with first External Advisory Board and Grand Rounds

Clinician Research Mentoring

- Have met with and/or are mentoring new clinician researchers (Clifton Cage, DO; Anne Sanders, DO, MPH, JD)

PCRI/NorTex News

Christian, MD; Michael Clark, PA, PhD; Thomas Dayberry, DO, PhD; Christopher Mann, DO; Mark

Policy Briefs

- Contracted to have 2 policy briefs composed for dissemination to public officials: 1. North Texas Healthy Heart Study; 2. Mental disorders among probation population

Giving Back to the Community (academic and lay)

- North Texas Healthy Heart Newsletter – distributed to study participants in September 2007
- PCRI Journal – distributed quarterly to all NorTex members
- Grand Rounds – Eliezer Katz, MD, FACS, December 2007; Milton Packer, MD, February 2008 (attendance of around 50 people at each event)

Recognition by Research Community

- Article/information about PCRI in UNTHSC Synergy, Texas Family Physician, the DO, Research Texas Inc.

Websites

- Created and updated PCRI website
- Updated NorTex website

Committees with PCRI Representation

- Internal – Data Safety Monitoring Board (PI J. Licciardone), Faculty Evaluation Development Committee, President's Strategic Thinking Council for Research
- External – UT Southwestern Community Health Research Initiative Committee of the Clinical Translational Service Award, National Society of Teachers of Family Medicine Research, Texas Osteopathic Medical Association, Tarrant County Infant Mortality Taskforce

Reviewers for Peer Reviewed Journals

- American Journal of Public Health, Annals of Internal Medicine, Archives of Internal Medicine,

Cancer, Journal of the American Medical Association, Journal of Postgraduate Medicine, Maternal and Child Health Journal, Osteopathic Medicine and Primary Care

Just a Reminder to our Readers...

This issue of the Primary Care Research Journal has been written in collaboration with our research partners as well as PCRI/NorTex participating clinicians and staff members.

We hope that you enjoy this issue of the journal.

Should you have any questions or comments regarding the journal or if you are interested in contributing to future issues, please call 817-735-2405 or e-mail PCRI@hsc.unt.edu

We welcome your input and we look forward to hearing from you.

PCRI/NORTEX SCHOLARLY ACTIVITY & ACHIEVEMENT REPORT

The PCRI/NorTex is pleased to provide the most up-to-date information on our recent academic and achievement successes for Quarter 3 & 4 of Fiscal Year 2008. For your review:

| PCRI ACHIEVEMENT REPORT – Quarter 3 & 4 (Cumulative from September 1, 2007-August 31, 2008) | | | | |
|---|----------|--|-------------------------------------|--|
| RESEARCH | N/P * | | | |
| Grant/Contracts awards | | | | |
| <u>Project title</u> | | <u>Investigators</u> | <u>Sponsor (Application ID)</u> | <u>Award amount (dates)</u> |
| North Texas Healthy Heart Study II | N | Cardarelli R Carroll J | NIH (EXPORT Center) | \$408,895 (4/06-6/09) |
| Cancer screening educational interventional study | N | Cardarelli R (PI) Argenbright K (Moncrief) | Moncrief Cancer Foundation | \$83,665 |
| Health Disparities in Asthma among the Tarrant County Pediatric Population | N | Lackan N, Jones H, Benz B (Multi-PI) | NIH (EXPORT Center) | \$25,000 (1 year) |
| NorTex Needs Assessment | N | R Cardarelli K Fulda | Pfizer | \$91,000 (1 year) |
| HPV Vaccine Acceptability among African American Women | P | Cardarelli K Raines A Kurian A Cardarelli R | For Her Intramural Seed Grant | \$50,000 |
| Best Practices for Cancer Screening | N | Cardarelli R Fulda K | Moncrief Cancer Foundation | \$161,334 (18 month study)) |
| Grant/Contracts submissions | | | | |
| <u>Project title</u> | | <u>Investigators</u> | <u>Sponsor (Application ID)</u> | <u>Amount requested (dates)</u> |
| Clinical Translational Science Award | N/P | Milton Packer, MD (PI) R. Cardarelli (NorTex) | NIH | TBD/ 5 year grant (est. \$330,000 – year 1) |
| Spinal Manipulation and Chronic Low Back Pain: A NorTex PBRN Cohort Study | N | Cardarelli R Licciardone JC Hilsenrath P | NIH (R21) | \$574,629 (November 2007) – not funded |
| NorTex Health Disparities Conference | N/P | Cardarelli R | AHRQ | \$38,369/ 1 year (December 2007) – not funded |
| Multifactorial Study of Response to Spinal Manipulation for Chronic Low Back Pain | N | Licciardone J Cardarelli R | NIH (R01) | \$1,800,000 (February 2008) – not funded |

| Grants under development | | | | |
|--|---|---|--|---------------------------------------|
| <u>Project title</u> | | <u>Investigators</u> | <u>Sponsor</u> | <u>Anticipated submission date</u> |
| Mental health disorders and concomitant substance abuse among the Tarrant County probation population | P | Mann C Effinger W Cardarelli R | Meadows Foundation | \$100,000 (Summer 2008) |
| Patient Communication, Psychosocial Factors, and Mammogram Screening Among Asymptomatic African American Women | N | Cardarelli R Cardarelli K Lurie S | Komen Foundation | \$298,828 (September 2008) |
| Racial/ethnic differences and causes of coronary plaque instability and lifestyle modification | N | Cardarelli R Carroll J | NIH (R01) | TBD |
| CME Evidence-Based Medicine educational series | P | Fulda K Cardarelli R Licciardone JC McFadden P Crim A | TBD | TBD |
| Improved patient medication awareness and reduce medication errors using the TCOM system | P | Mann C | TBD | TBD |
| Primary Care Workforce Project | P | Cardarelli R Palmarozzi E Licciardone JC Lykens K | Osteopathic Heritage Foundation | TBD |
| Fit Family Program | P | Menchaca J Cardarelli R | TBD | TBD |
| Medical Home Bridge Program | N | Cardarelli R | AHRQ (R01) | TBD |
| | | | | |
| Peer-reviewed publications | | | | |
| <u>Manuscript title</u> | | <u>Journal</u> | <u>Authors</u> | <u>Citation/Status</u> |
| Visceral fat, waist circumference and body mass index: Impact of race/ethnicity. | | Obesity | Carroll JF, Chiapa AL, Rodriguez M, Phelps DR, Cardarelli KM, Vishwanatha JK, Bae S, Cardarelli R. | Obesity 2008. doi.10.1038/oby.2007.92 |

| | | | | |
|---|--|---|--|---|
| Osteopathic Medicine and Primary Care completes first year of publication. | | Osteopathic Medicine and Primary Care. | Licciardone JC, Cardarelli R. | Osteopathic Medicine and Primary Care. 2008; 2:1 (24 Jan 2008) |
| Meta-analysis: Comparison of F-18 fluorodeoxyglucose-positron emission tomography and bone scintigraphy in the detection of bone metastases in patients with breast cancer. | | Clinical Nuclear Medicine | Shie P, Cardarelli R, Brandon D, Erdman W, Abdul-Rahim N. | Clinical Nuclear Medicine. 2008; 33(2):97-101 |
| General health status and adherence to anti-retroviral therapy | | Journal of the International Association of Physicians in AIDS Care | Cardarelli R, Weiss S, Adams E, Radaford D, Vecino I, Munguia G, Johnson KL, Fulda KG | Journal of the International Association of Physicians in AIDS Care. 2008. doi.10.1177/1545109708318526 |
| Factors for accessing a medical home vary among CSHCN from different levels of socioeconomic status | | Maternal and Child Health Journal | Fulda KG, Lykens K, Bae S, Singh K | Maternal and Child Health Journal. 2008. doi.10.1007/s10995-008-0371-z |
| Primary care's impact on colorectal cancer screening | | Annals of Family Medicine | Cardarelli R Thomas J | Accepted |
| Impact of race/ethnicity on the relationship between visceral fat and inflammatory biomarkers | | Obesity | Carroll JF, Fulda KG, Chiapa AL, Rodriguez M, Phelps DR, Cardarelli KM, Vishwanatha JK, Cardarelli R | Pending review |
| Systematic review: prevalence of malignant incidental thyroid nodules identified on positron emission tomography | | Journal of Nuclear Medicine | Shie P Cardarelli R Sprawls K Fulda KG Taur A | Pending review |
| Unmet mental health care needs for CSHCN stratified by socioeconomic status | | Child and Adolescent Mental Health | Fulda KG, Lykens K, Bae S, Singh K | Revisions in progress |

| Peer-reviewed publications under development | | | | |
|--|--|---------|---|-----------------|
| Manuscript title | | Journal | Authors | Citation/Status |
| Acculturation and self-reported general health among Hispanics | | TBD | KL Jonson, A Chiapa, M Rodriguez, J Carroll, K Cardarelli, & R Cardarelli | |
| Perceived racial discrimination, response to unfair treatment, and coronary calcification in asymptomatic adults – the North Texas Healthy Heart Study | | TBD | Cardarelli R Cardarelli KM Carroll J Fulda KG Espinoza A Young R Cage C Steele DN Vishwanatha J | |
| The impact of sense of control on health literacy | | TBD | Igjabemi M Lopez K Cardarelli R Weiss S, et al | |
| Psychosocial stressor index and health behaviors | | TBD | Cardarelli R Pandya V Cardarelli KM Stimpson J Jeffries S | |
| Does social support predict coronary artery calcium? – the North Texas Healthy Heart Study | | TBD | Cardarelli R Fulda K Cardarelli KM Carroll J Espinoza A Johnson KL Pandya V Vishwanatha J | |
| Having a Primary Care Physician and Cervical and Breast Cancer | | TBD | Cardarelli R Pandya V | |
| Social and Economic Implications for Health Care among CSHCN | | TBD | Fulda KG Lykens K | |

| Presentations | | | | |
|--|--|--|---|-----------------------------|
| <u>Title</u> | | <u>Presenter</u> | <u>Venue name/location</u> | <u>Local/State/National</u> |
| Acculturation and Self-Rated Health among Hispanics | | KL Johnson R Cardarelli Et al | 2008 Texas Public Health Policy Forum, Austin, TX | State |
| Acculturation and Self-Rated Health among Hispanics | | Johnson KL Chiapa A Rodriguez M Carroll J Fulda KG Cardarelli K Cardarelli R | Unite for Sight International Conference New Haven, CT | National |
| General Health Status and Adherence to Antiretroviral Therapy | | Cardarelli R, Weiss S, Adams E, Radaford D, Vecino I, Munguia G, Johnson KL, Fulda KG | AHRQ National PBRN Research Conference Bethesda, MD | National |
| Colorectal Cancer and Primary Care Physicians | | Cardarelli R Thomas J | AHRQ National PBRN Research Conference Bethesda, MD | National |
| Prevalence and Characteristics of Adult Probationers with Attention Deficit Hyperactivity Disorder and Bipolar Disorder in the Tarrant County Treatment to Alternatives to Incarceration Program | | Effinger W Mann C Sivernel R | 3 rd Annual Texas Conference on Health Disparities Fort Worth, TX | State |
| Racial/Ethnic Differences in Cardiovascular Inflammatory Markers – the North Texas Healthy Heart Study | | Cardarelli R Fulda KG Chiapa A Rodriguez Carroll J Cardarelli K | 3 rd Annual Texas Conference on Health Disparities Fort Worth, TX | State |
| Relationship between Visceral Fat and Inflammatory Biomarkers is Altered by Race/Ethnicity (North Texas Healthy Heart Study) | | Carroll JF Cardarelli K Chiapa AL Rodriguez M Phelps DR Fulda K Cardarelli R | 3 rd Annual Texas Conference on Health Disparities Fort Worth, TX | State |

| Interdisciplinary initiatives | | | | |
|--|-----|--|--|---|
| Initiative/ program title | | Investigators | Disciplines involved | Notes |
| Clinical Translational Service Award | N/P | Milton Packer, MD (PI) R. Cardarelli (Sub-I) Multiple | Multiple | Multi-institutional effort |
| North Texas Healthy Heart Study II | N | Cardarelli R Carroll J Cardarelli K | All Primary care Physiology Epidemiology Biostatistics | |
| HPV Vaccine Acceptability among African American Women | P | Cardarelli K Raines A Kurian A Cardarelli R | Epidemiology Public Health Primary Care Biostatistics | |
| Behavioral Determinants of Methylation Abnormalities in Healthy Men and Women | N | Zhang FF Cardarelli R Carroll J Fulda K | Epidemiology Primary Care Biostatistics Physiology | |
| Spinal Manipulation and Chronic Low Back Pain: A NorTex PBRN Cohort Study | N | Cardarelli R Licciardone JC Hilsenrath P Ruppert R | All Primary care Manipulative medicine Economics Chiropractic | Involves PCRI/NorTex, ORC, JPS, and Parker Chiropractic College |
| Racism and Blood Pressure Control Among Hispanics | N | Cardarelli R Cardarelli K Nejtek V | Family Medicine Epidemiology Psychology | |
| Patient Communication, Psychosocial Factors, and Mammogram Screening Among Asymptomatic African American Women | N | Cardarelli R Cardarelli K Lurie S Skinner C (UT Southwestern) | Primary care Epidemiology Social and Behavioral Sciences Communication Sciences | |
| Primary Care Workforce Project | P | Cardarelli R Palmarozzi E Licciardone JC Lykens K | Primary care Osteopathic medicine Health Policy | Involves PCRI, ORC and SPH |
| Cancer screening educational interventional study | N | Argenbright K (Moncrief) Cardarelli R | Primary Care Cancer research | Involves PCRI and Moncrief Cancer Center |
| Primary Care Research Fellowship | P | Cardarelli R Multiple other | Primary care Basic Sciences Public Health | TCOM, SPH, and GSBS are intricately involved |

| | | | | |
|--|---|---|---|--|
| DaTA Institute | P | Salyer-Caldwell A (TCPH) Kurian A (TCPH) Hejny T (TCPH) Moerbe M (TCPH) Shaheed K (Harris) Fulda K | Primary Care Public Health (TCPH) | |
| Very Low Birth Weight and Race in Tarrant County | P | Kurian A (TCPH) Moerbe M (TCPH) Fulda K | Primary Care Public Health (TCPH) | |
| Infant Mortality in Tarrant County for Late and Early Preterm Births | P | Kurian A (TCPH) Moerbe M (TCPH) Fulda K | Primary Care Public Health (TCPH) | |
| Incidental finding of thyroid malignancies using PET-scan | P | Shie P Cardarelli R Sprawls K | Primary care Nuclear medicine | UNTHSC, Kaiser Permanente |
| CME Evidence-Based Medicine educational series | P | Fulda K Cardarelli R Licciardone JC McFadden P Crim A | Primary care CME | PCRI ORC PACE |
| Predictors and Mediators for Risky Teenage Behavior | P | Fulda K Kurian A (TCPH) Lykens K | Primary Care Public Health | |
| Racial/Ethnic and Gender Differences in Manner of Death by Blood Alcohol Level | P | Fulda K Kurian A (TCPH) | Primary Care Public Health | Also includes TC Medical Examiner's Office |
| | | | | |

EXTRA-INSTITUTIONAL SERVICE

| <u>Name</u> | <u>Service</u> | <u>Organization</u> | <u>Date(s)</u> |
|--------------|------------------|---|-----------------|
| Fulda | Committee Member | Tarrant County Infant Mortality Taskforce | 6/07 to present |
| Cardarelli R | Committee Member | UT Southwestern CTSA Committee | 9/07 to present |
| | | | |

EDUCATION INITIATIVES

| <u>Program name</u> | <u>Contact person</u> | <u>Purpose</u> | <u>Notes</u> |
|----------------------------------|-----------------------|----------------------------------|--|
| Primary Care Research Fellowship | Cardarelli R | Train DO/MS in clinical research | 7 fellows are currently in the program |

| | | | | |
|--|--|--|---------------------------------------|-------------------------|
| Evidence-Based Medicine DVD development | | Cardarelli R Fulda K McFadden P Crim A | Train clinicians on principles of EBM | Grant to be submitted |
| Evidence-Based Medicine Residency series | | Cardarelli R | Train family medicine residents on | |
| | | | | |
| OUTREACH EFFORTS | | | | |
| <u>Name</u> | | <u>Outreach activity</u> | <u>Organization</u> | <u>Hours of service</u> |
| | | | | |
| | | | | |
| CONSULTING AND OTHER SERVICES | | | | |
| <u>Name</u> | | <u>Consulting/Other Service</u> | <u>Organization</u> | <u>Hours of service</u> |
| Cardarelli R | | Associate Editor | Osteopathic Medicine and Primary | 6 hrs per month |
| Cardarelli R | | Reviewer | Annals of Family | Varies |
| Cardarelli R | | Reviewer | American Journal | Varies |
| Cardarelli R | | Reviewer | Southern Medical | Varies |
| Cardarelli R | | Reviewer | Journal of the American Medical | Varies |
| Cardarelli R | | Committee member for numerous SPH and GSBS students | SPH GSBS | Varies |
| Fulda K | | Biostatistician consultant for research medical stu- | TCOM | Varies |
| Fulda K | | Reviewer | Maternal and Child Health Jour- | Varies |
| | | | | |
| *N/P, NorTex or PCRI Project | | | | |

Evidence Journal

A Publication from the CENTER for Evidence-Based Medicine

Primary Care Research Institute/NorTex

Division of Research

Department of Family Medicine

Volume 5 Issue 4

October 2008

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: What effect does self monitoring of blood sugar levels have on glycemic control in patients with type 2 diabetes mellitus?

A: "In patients with newly diagnosed type 2 diabetes, self monitoring of blood glucose concentration has no effect on glycemic control"¹

¹ O'Kane MJ, Bunting B, Copeland M, Coates VE (ESMON study group). Efficacy of self monitoring of blood glucose in patients with newly diagnosed type 2 diabetes (ESMON study): Randomised controlled trial. *BMJ*. 2008; 336(7654): 1174-1177.

Q: In the management of patients with dyspepsia, what is the cost effectiveness of empirical acid suppression compared with *Helicobacter pylori* "test and treat"?

A: "Test and treat and acid suppression are equally cost effective in the initial management of dyspepsia."²

² Delaney BC, Qume M, Moayyedi P, et.al. *Helicobacter pylori* test and treat versus proton pump inhibitor in initial management of dyspepsia in primary care: Multicentre randomised controlled trial (MRC-CUBE trial). *BMJ*. 2008; 336(7745): 651-654.

Q: What is the effectiveness of current pharmacologic therapies for the treatment of Alzheimer Disease?

A: "Treatment of dementia with cholinesterase inhibitors and memantine can result in statistically significant but clinically marginal improvement in measures of cognition and global assessment of dementia."³

³ Raina P, Santaguida P, Ismaila A, et.al. Effectiveness of cholinesterase inhibitors and memantine for treating dementia: Evidence review for a clinical practice guideline. *Ann Intern Med*. 2008; 148(5): 379-397.

Q: In asymptomatic patients undergoing screening colonoscopy, are colon polyps greater than 9 mm more prevalent in black or white patients?

A: "Compared with white individuals, black men and women undergoing screening colonoscopy have a higher risk of polyps sized more than 9 mm, and black individuals older than 60 years are more likely to have proximal polyps sized more than 9 mm."⁴

⁴ Liberman DA, Holub JL, Moravec MD, et.al. Prevalence of Colon Polyps Detected by Colonoscopy Screening in Asymptomatic Black and White Patients. *JAMA*. 2008; 300(12): 1417-1422.

Q: In patients with COPD, what are the cardiovascular effects of inhaled anticholinergic medications?

A: "Inhaled anticholinergics are associated with a significantly increased risk of cardiovascular death, MI, or stroke among patients with COPD."⁵

⁵ Singh S, Loke YK, Furberg CD. Inhaled Anticholinergics and Risk of Major Adverse Cardiovascular Events in Patients With Chronic Obstructive Pulmonary Disease: A Systemic Review and Meta-analysis. *JAMA*. 2008; 300(12):1439-1450.

Q: Does physical activity have an effect on the rate of cognitive decline among adults aged 50 years or older?

A: "In this study of adults with subjective memory impairment, a 6-month program of physical activity provided a modest improvement in cognition over an 18-month follow up period"⁶

⁶ Lautenschlager NT, Cox KL, Flicker I. Effect of Physical Activity on Cognitive Function in Older Adults at Risk for Alzheimer Disease: A Randomized Trial. *JAMA*. 2008; 300(9): 1027-1037.




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