Impact of a Comprehensive Integrative Therapies and Self-Management Approach to Chronic Pain Management in a Primary Care Setting

Description/Purpose/Objectives:

Historically care for chronic pain has been provided by high cost specialists – anesthesiologists, neurologists, and rheumatologists. “Health economists have reported the annual cost of chronic pain in the United States is as high as $635 billion a year, which is more than the yearly costs for cancer, heart disease and diabetes.” “Persons with moderate pain had health care expenditures $4,516 higher than someone with no pain, and individuals with severe pain had costs $3,210 higher than those with moderate pain. Similar differences were found for other pain conditions: $4,048 higher for joint pain, $5,838 for arthritis, and $9,680 for functional disabilities.” (1) Emergency departments in the US showed a dramatic rise in opioid prescribing from 2001-2010, with hydrocodone prescribed at 14% of ED visits. (2) Hydrocodone led as the highest medication cost of the Seton uninsured totaling $30,000.00 in 2012. The Institute of Medicine Report on pain describes the need to change the way that pain is viewed and treated from strictly a biological phenomenon to a more complex bio psychosocial experience. (3) A recent NIH panel on The Role of Opioids in the Treatment of Chronic Pain cites a need for more research on multidisciplinary pain interventions as well as a need for an individualized, patient-centered approach. (4) Family practitioners and other PCPs when given the appropriate tools can provide cost-effective longitudinal care with enhanced outcomes at significantly reduced costs.

Specifically, the primary care medical home setting equipped with innovative, low cost tools and resources, utilizing health information technology and on-site integrative therapies offers an opportunity to transform chronic pain care with improved patient outcomes and reduced health care system costs. The purpose of this study is to explore integrative patient centered tools and programs that inspire self-management, reduce reliance on opioids alone and the associated medication costs, reduce reliance on expensive specialty care, improve functional outcomes with decreased ER visits and hospital admissions related to ineffective chronic disease management. Specific objectives are to evaluate a community health, primary care, nurse practitioner run pain and integrative therapies program. The program aims to integrate lifestyle and behavioral changes through body, mind, spirit practices, to optimize and balance long term opioid management with self-management strategies, and to utilize on-line and mobile applications, electronic health record support tools and on line health outcomes information registry.

Gaps identified were a lack of available non-medication alternatives and resources for pain management, co-dependence and overutilization of healthcare system for opioids for chronic conditions, and difficulty motivating individuals to engage and commit to self-management. We are partnering with members of the community to offer a variety of integrative therapies in a primary care setting. We have created EMR templates for tracking functional outcomes and are developing an evidence-based multimodal approach within the primary care medical home. The Cleveland Clinic, Mayo Clinic and Stanford have integrative medical centers. (4) Our program offers a combined medical + integrative approach. Internet based interventions using cognitive behavioral approaches can be effective in promoting self-management of chronic pain conditions. A recent study suggests that a
smartphone-delivered intervention in a specific chronic pain population can reduce catastrophizing and modify functional impairment. (5)

**Preliminary studies:** A pre-program provider chronic pain survey was conducted to evaluate comfort level in prescribing and effect on job satisfaction. Pilot 6 week paced exercise and mindfulness classes conducted at Seton McCarthy, utilizing pre-program functional screening tools and a chronic pain tracking form at each visit. We noted an A1C reduction in one diabetic male from 8.9 pre-class to 7 post class as well as modest weight loss. This has prompted interest in tracking population specific indicators for chronic disease management such as A1C’s, weight and BP control pre and post class completion as well. High attrition rate was identified and a need for individual encouragement and coaching outside of clinic/class time. We are interested in exploring a variety of health information technologies to provide support.

**Specific aims/purpose:** The purpose of this study is to explore integrative patient centered tools and programs that inspire self-management, reduce reliance on opioids alone and the associated medication costs, reduce reliance on expensive specialty care, improve functional outcomes with decreased ER visits and hospital admissions related to ineffective chronic disease management. Specific aims are to 1) Evaluate a Living Well with Pain shared medical visit format for delivery of pain related education, mindfulness and movement practices on patients willingness to utilize self-management strategies 2) Utilize electronic chronic pain tracking tools and templates for collecting pain, functional outcomes and chronic disease indices on individuals participating in integrative therapies 3) Evaluate mobile pain applications, online self-management programs and patient portal use for potential engagement of patients and families in positive behavior changes.

**Methodology:** Descriptive report of existing on-line and mobile applications, provider satisfaction survey; convenience sample of functional outcomes related to integrative therapy program participation; and utilization of the Stanford NIH Pain Registry, Collaborative Health Outcomes Information Registry (CHOIR),

**Expected Outcomes for Population Served:** 1) Decreased reliance on opioids alone for chronic pain 2) Improved functional outcomes evidenced by comparing pre and post Brief Pain Inventory 3) Improved prescribing practices utilizing algorithms to offer standardized evidenced based quality pain management 3) Improved patient safety 4) Decreased pharmacy costs 5) Improved access to integrative therapies within the Medical Home Model of services offered within the clinic setting 6) Improved relationship with PCP with more time to address other health issues in routine visits 7) Empowerment of patients as active participants in the self-management of their pain through counseling, group classes and use of appropriate technology (phone apps etc.) 8) Improved provider satisfaction in dealing with chronic pain patients 9) Improvement in chronic disease indicators such as A1C’s pre and post in individuals with DMT2, weight pre and post, anxiety scale, PHQ9

**Significance and practice impact anticipated:** Cost savings, patient centered medical care, method of population management, creation of integrative approaches that promote comprehensive, holistic primary care. New team work approaches are being explored between physical therapy, nutrition, social workers, primary care providers. Collaborations with University of Texas, College of Natural Sciences, Health Information Technology and community resources such as AOMA, Pure Action Yoga and We Viva are being developed. We are exploring ongoing ideas on how to engage healthcare
professionals, patients, and families. Our program is adapting work done by the VA to a community clinic setting with an underserved safety net population. We are adopting recommendations from the National Institute of Health, Texas Medical Board and American Pain Society

Limitations- We are a community health clinic that is not funded for research and are currently piloting our program. Our idea is based on APS, NIH recommendations but our numbers are small and we are collecting data. We completed one, 7 week, “Living Well with Pain” group with 8 participants with good evaluations and some functional improvements but are without lasting functional outcomes. Patient commitment and ability to participate in the full proposed 8 week program is challenging and incentives are needed. There are many variables with variety of coexisting chronic conditions and variety of pain diagnoses. The program is being developed without a full time Pain and integrative Therapies program coordinator. Our population does not uniformly have smart phones and home computer access.

We really need to let those who could appreciate this idea know of our efforts, obtain some support and move into the official research arena.

References:

1. American Pain Society. Chronic pain costs U.S. up to $635 billion, study shows.  


