

Invitation to Ohio:

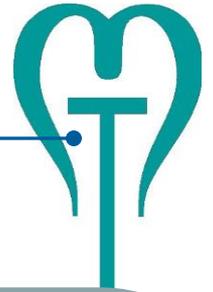
Healthcare Innovation

Discussion Framework

M. T. Wellness



MRMT[®]: Low Back Pain manuscript



Medical Restorative Massage Therapy as a Novel Treatment for Chronic Low Back

Pain: A Retrospective Study.

Thuy Bowyer*, Jennifer R. Larson, Deborah M. Grzybowski, and Kedar Hiremath

Abstract

Background: Low back pain (LBP) is the most common form of chronic pain yet there is still a need for an effective treatment for patients with chronic low back pain. LBP is often treated with various forms of complementary and alternative medicine (CAM) techniques including massage therapy. However, there are conflicting and contradictory findings on the effectiveness of these techniques for the treatment of LBP.

Objectives: To determine the efficacy of Medical Restorative Massage Therapy (MRMT[®]), a multidisciplinary therapeutic intervention that incorporates a structured assessment and personalized hands-on interactive manual approach for the treatment of patients with chronic pain, with emphasis in this study on chronic low back pain.

Study Design: Retrospective study of data collected from patients diagnosed with chronic LBP and treated with MRMT.

Setting: Clinical treatment center.

Methods: From 2008-2012 MRMT was used to treat 143 adult patients (104F; 39M) with 7 ICD-9 codes (724.1-724.7) for chronic LBP. MRMT includes a structured assessment at the beginning of each session and focuses on pain reduction, restoration of physical function, and patient education/self-care. Chronic pain improvement was measured on a modified Wong-Baker 10-point scale and increases in function and quality-of-life were assessed using a self-reported 5-point survey of 17 different physical activities and medication use. Data on levels of pain were collected prior to each treatment. Quality-of-life data were collected using surveys completed by each patient before their first treatment and by returning patients again in 2010.

Results:

For patients with chronic LBP, the mean initial pain rating was 5.8 +/-2.3. Following MRMT treatment, patients reported an average pain level of 3.4 +/-2.1, which is a 40% decrease in pain ($p<0.001$) using the same 10-point pain scale. Patients treated for LBP in 2011 were surveyed for quality-of-life and medication use and those who had undergone MRMT for more than 1 year self-reported an average increase of quality-of-life indicators of 23%, an 85% reduction in the use of other therapies, and of the patients who reported using prescription medication to treat their chronic LBP prior to MRMT, 50% discontinued using prescription medication after MRMT.

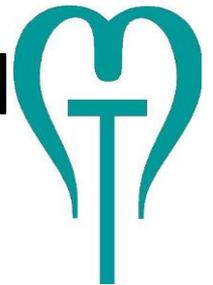
Limitations: Absence of a control, untreated group due to the retrospective nature of the study.

Conclusion: Manual therapy, when performed using a structured assessment and personalized treatment approach, such as MRMT, is an effective treatment for chronic low back pain.

Results 1 year post MRMT[®] treatment:

- 40% pain reduction
- 50% discontinued using prescription medication
- 23% increased in quality of life
- 85% reduction in the use of other therapies

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MRMT® Research data report piqued AG DeWine's interest in 2016



MRMT®: an effective alternative to prescription drugs for people living with chronic pain (based on 2016 data)



Patient Data		
Male	88	22%
Female	248	78%
Average Age	62	
New patients this year	67	
Average number of visits per patient	6	
Average patient pain rating	3	
Average patient function rating	81	
Treatment for:		
Pain	183	67%
Loss of Function	13	5%
Both	102	38%
Other	7	2%
Acute	146	48%
Chronic	164	62%

Medications Taken at Initial Visit		
Pain reliever	83	22%
Muscle Relaxer	146	38%
Anti-inflammatory	8	2%
Anti-depressant	1	0%
Anti-anxiety	1	0%
Anti-convulsant	0	0%
Sleep aid	1	0%
Multiple	146	38%
Discontinued medication since initial treatment?		
Y	76	40%
N	113	80%

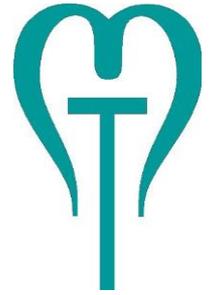
40% of patients discontinued pain medications with MRMT®

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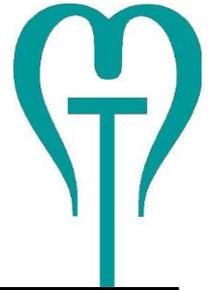
Problem: Musculoskeletal Pain



- Musculoskeletal impairments are a major contributor to chronic pain and functional disorders.
- Unfortunately, our current primary healthcare system does not appreciate this nor address it until disability, absenteeism, or chronic conditions develop among workers.
- Ohio Governor's Cabinet Opioid Action Team encourages insurance companies to provide support for non-pharmaceutical interventions.



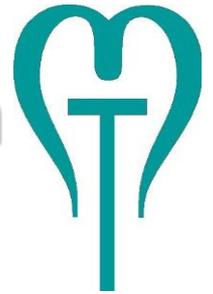
Shared: Common values and belief



Ohio BWC	MTW
<p>Workplace Wellness Grant Program to partner with employers to develop a healthier workforce.</p> <ul style="list-style-type: none">• Goal is to limit and control the escalating cost of workers' compensation claims by addressing health risk factors.• Financially assisted employers in creation and implementation of a wellness program up to \$15,000 to eligible employers until the grant funds are no longer available.	<p>MTW-MRMT to partner with Dave Fox (DF) Company to develop a healthier workforce.</p> <ul style="list-style-type: none">• To examine the cost savings and how to shift from “vital signs only” wellness to adding on musculoskeletal assessment in the work environment.• Shared cost between MTW and DF from January 2017-June 2018 for the pilot study initiative aimed at improving employee health and safety to improve productivity and reduce costs to our state of Ohio.



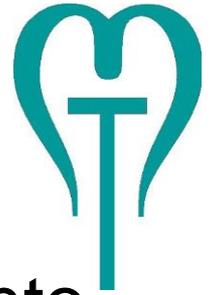
Our Solutions: Healthcare Innovation



1. This gap in our healthcare delivery needs to be addressed with education, increased awareness, and appropriately trained staff in musculoskeletal health assessment and management.
2. We believe this training must begin at the grassroots level.



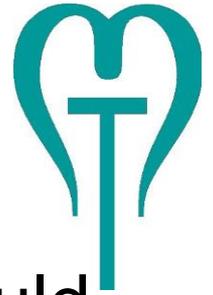
Our Vision: Healthcare Innovation



- Empower students with new skills for entry into the healthcare field by introducing a new course series at the undergraduate level.
- Establish healthcare “wellness” evaluations by increasing awareness of the importance of good musculoskeletal health in the workplace and elsewhere.
- Collaborate with local businesses to expose students to a work environment so they can hone their new communication skills in a real world setting and also avail of any job opportunities.



Our Vision: Healthcare Innovation

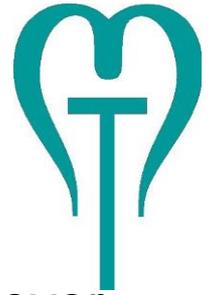


Through Capital University, these students would learn

1. how to communicate and interact with each individual employee;
2. how to conduct musculoskeletal general assessment in the work place;
3. how to gather data, write reports and make recommendations based on a structured Musculoskeletal health assessment and scoring system that has been published in the Journal of Family Medicine and Disease Prevention (JFMDP) while using BWC wellness program vendors guidelines to assist the company.



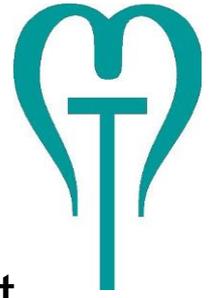
Our Solution: Collaboration



1. Short term: to offer scholarships to qualified students to cover partial tuition to encourage them to register for this course during the first two years it is offered. Students will also receive credits towards their graduation requirements.
2. Long term: expand, so that success of this initiative will result in Capital University making these electives a part of their regular course offering and musculoskeletal health assessment could eventually become part of our primary medical care to achieve:
 - Chronic pain is reduced or eliminated
 - Physical function is restored
 - Pharmaceuticals eliminated or reduced
 - Invasive procedures avoided
 - Health care cost savings achieved through intervention and prevention



Accelerating Adoption: Ohio first!



- Results for Ohio: decrease in drug use, healthcare cost reduction, healthier, more effective workforce for Ohio businesses, job creation
- Critical success elements:
 - Pipeline of healthcare students to conduct annual musculoskeletal health assessment while learning how to communicate one on one and apply their skills through externship
 - Ohio encourages this **Workplace Wellness Program** as collaboration between higher education institution and companies
 - All healthcare insurance encourages **Workplace Wellness Program**
 - Consumers well informed on **Workplace Wellness Program** options



How can we collaborate? Ohio first!



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- Key discussion topics:
 - Are there new areas we should be thinking about and potentially helping with at this time?
 - We want to grow our ideas in Ohio and seek your support and guidance.