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Fight Sitting with Movement

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The University of Vermont
LARNER COLLEGE OF MEDICINE



Western Connecticut
Medical Group



Fight Sitting with Movement!

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Brookfield Family Medicine
September 2018

Project Mentors:
Dr. Cornelius Ferreira MD
&
Kathy McCoy-Goldstein APRN

2A) PROBLEM IDENTIFICATION & DESCRIPTION OF NEED

- Today, Americans spend an average of **13 hours** per day sitting. (1)
- Sitting for as little as two **continuous** hours increases the risk of heart disease, diabetes, metabolic syndrome, cancer, back and neck pain, and other orthopedic problems. (2)
- The typical seated office worker has more musculoskeletal injuries than any other industry sector worker, including construction, metal industry, and transportation workers. One researcher's conclusion: **sitting is as much an occupational risk as lifting heavy weights** on the job. (4)

2B) PROBLEM IDENTIFICATION & DESCRIPTION OF NEED

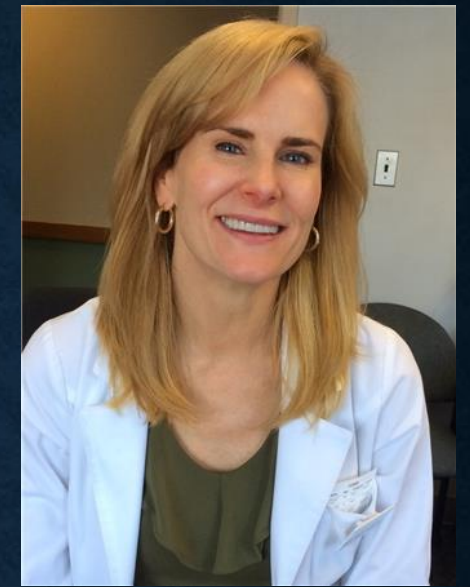
- The proposed solution: **Increase our NEAT!** NEAT = Non-Exercise Activity Thermogenesis.
- A standing body uses energy quite differently than a sitting body. Depending on our level of activity, we burn calories at different rates, and we also store calories differently. “**Non-exercise activity**” is what you do when you’re not exercising at high intensity – things like standing, walking, gardening, cooking, and fidgeting. (12)
- Dr. James Levine calls it **Non-Exercise Activity Thermogenesis** or NEAT. (14). People with **LOW** levels of non-exercise activity are predisposed to obesity. Obesity and sedentary behavior (sitting) go hand in hand.

3) PUBLIC HEALTH COST CONSIDERATIONS

- The Centers for Disease Control reports that we are spending **75 cents of every health-care dollar** on chronic conditions linked to sedentary behavior, like obesity, diabetes, and heart disease. (6)
- According to the National Institutes of Health, **back pain affects 8 of 10 people** in their lifetime, and it is the leading cause of disability worldwide. (7)
- **Risk Factors for Low Back Pain** include: **Prolonged sitting** (with truck driving having the highest rate of low back pain, followed by desk jobs) & Obesity.
- In the United States alone, we spend almost **\$1 billion** treating back pain. (8)

4) COMMUNITY PERSPECTIVE & SUPPORT FOR PROJECT

“Sedentary lifestyle is associated with diabetes, hypertension, dyslipidemia & obesity. We see patients with those problems EVERY single day. Anything that can get them to be more physically active would be a step in the right direction for better health outcomes.”



Kathy McCoy APRN



“During all of our annual physicals, patients are counseled to be physically active for at least 150 minutes per week. It can be difficult for many to get started - a free, engaging online resource showing them some movement they can do on their own would be very helpful!”

Dr. Cornelius Ferreira MD

5) INTERVENTION & METHODOLOGY

My Family Medicine Clerkship Community Health Improvement Project

- Health with Harris → FSWM Campaign
- FSWM = Fight Sitting with Movement!
- #4for60 = Take 4 minutes of movement for every 60 minutes of sitting



- 8 YouTube videos presented in an **engaging, educational and detailed manner** to show individuals **WHAT** they can do and **HOW** to do it
- The 8 videos focus on moving the body's joints through their **normal ranges of motion & improving an individual's NEAT** (non exercise activity thermogenesis)
- The **joints** focused on: **Neck, Scapula, Shoulder, Spine, Hips, Knee, Ankle, Foot**

https://www.youtube.com/playlist?list=PLeybsH7G8Y8BGxuiC_arQt-9UAP_Oto-

6A) RESULTS/RESPONSE

- “The videos are informative, upbeat and fun!”
- “I actually stood up IMMEDIATELY when I started watching it! EEK!”
- “It’s awesome! Very engaging and informative”
- “Love it! Love your enthusiasm and the content! Simple and easy-to-apply!”
- “These are great!”
- “Would love for you to come in and instruct us on these a few times so we can feel comfortable doing them on our own”

6B) RESULTS/RESPONSE

- “Short and to the point”
- “light and upbeat, high energy”
- “seems very doable in any office setting”
- “Potential for broad use, potential for broad impact—
applies to everyone!”

7) EVALUATION OF EFFECTIVENESS & LIMITATIONS

- Schedule meetings with local primary care offices!
 - Schedule me coming in one day for one hour to demonstrate all 8 exercise videos to staff
 - Answer all questions and concerns
 - Follow up by sending links to videos for reference
 - Follow up every month with a survey asking what they have been able to do and if they feel like it has made them feel better, or helped/hurt them in anyway
 - Make appropriate changes based off of the feedback!

RECOMMENDATIONS FOR FUTURE INTERVENTIONS/PROJECTS

- More targeted video series focusing on exercises a patient can do for the most common musculoskeletal injury related primary care visits
 - Low back pain
 - Shoulder pain
 - Knee Pain

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