PENN STATE UNIVERSITY DEPARTMENT OF KINESIOLOGY

Aging and Psychology Lab News

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SPECIAL POINTS OF INTEREST:

- FuSE Study Results
- COPA Study Update
- Kinesiology in the News

Results from The FuSE Study

Functional Usability Study for the Elderly (FuSE)

This past year, Brian Gross, an undergraduate in the Aging and Psychology Lab, concluded the *Functional Usability Study for the Elderly (FuSE).*

The purpose of FuSE was to examine how time spent in physical activity and sedentary behavior influence the quality of life in participants between the ages of 65-80. Very few studies have analyzed the linkage between sedentary behavior and function.

Community volunteers participated in a functional fitness test, which assessed physical activity levels, completed a baseline questionnaire assessment, and wore an accelerometer to measure time spent in sedentary behavior and physical activity. Those who did not meet the weekly physical activity guidelines of 150 minutes, or were sedentary for at least 8 hours a day, were selected to continue wearing their accelerometer for 14 days after receiving brief behavior counseling.

Brian, concluded that physical activity was linked to function and quality of life. To learn more about Brian's study, visit his blog:

http://sites.psu.edu/briangross/2014/04/09/kineshonors/

So get off your chair, and start moving!

COPA Study Results

Moé Kishida recently concluded her master's thesis, "Coping with the Menopausal Transition: Identifying Resilient Resources for Successful Adaptation."

She investigated how physical activity and other coping mechanisms helped to reduce the unique and multifaceted symptoms experienced by women during the menopausal transition. The study monitored 103 middle-aged women who completed online daily surveys and wore an accelerometer for a period of 21 days. Moé concluded that, although physical activity may not directly improve menopause-related symptoms, it may help women to cope with them on a day-to-day basis through a psychological pathway. That is, on a day when a woman was more physically active than her average, she reported greater personal resources (i.e., positive affect, coping efficacy) and reduced symptom burden.

Physical activity may not only help to off set some of the negative health consequences that occur during the menopause, but it may also empower women through these immediate psychological benefits.

Congratulations to Moé Kishida

Moé Kishida was recently selected by The Women's Health SIG of SBM to receive "The Outstanding Student Researcher in Women's Health Award." Moé's work, "Daily Physical Activity Enhances Resilient Resources for Symptom Management in Middle Aged Women" was evaluated and elected based on her innovative research, quality of analysis and design, and relevance to women's health. Moé would like to thank all of the women who have made this research possible. Below is part of the acknowledgements section from her master's thesis:

"Special thanks go out to all of the wonderful women who were a part of the study. Thank you for enduring the monotonous surveys and for wearing the activity monitors over your summer dresses. This has been a great learning experience for me, and the study would not have been possible without your time, commitment, and willingness to participate."

Kinesiology in the News

Recently, "Experimental Gerontology" published a study enumerating how beneficial resistance exercise training is for older adults' muscle quality. Researchers divided participants in two groups: Group I performed a 6-week resistance program, followed by 6 weeks of detraining, where they went about their normal daily activities; Group II went about their daily activities for 12 weeks. From their initial fitness test, those who completed the 6-week training program, even after detraining for 6 weeks, increased their muscle quality by 22%, and these improvements lasted after the detraining phase. (Fragala, M. S., & et al., (2014). Muscle quality index improves with resistance training exercise training in older adults. *Experimental Gerontology*, *53*(2014), 1-6.)

Anyone can reap the benefits of a strength training program at any age; however, the sooner one starts the better. Benefits to strength training include: a reduced risk of osteoporosis, improved balance and coordination, an increase in bone density and muscle mass, and many more. All of these components will ultimately lead to a healthier, longer life.

If you are new to a workout program, or if this is a new exercise that you are beginning, and have any concerns about safely participating, please consult your physician before starting.

How to Progress:

If it's your first time in any strength training or resistance class, you should start with weights that do not cause any discomfort, but may be somewhat difficult. If you can lift them 10 times, you can stay with that specific weight or increase the difficulty. However, if you cannot complete 10 repetitions, then you may want to lower the weight. Every week or two, continue to reevaluate yourself. If the weights get easier then it's okay to lift more. However, always listen to your body and stop immediately at any pain or extreme discomfort.

Getting Started

•Most fitness centers offer a complimentary consultation to assess initial physical status and teach you the basics of what their gym offers.

- Water exercise is one of the safest methods to improve muscle strength and bone density.

•Local facilities that offer programs in the State College area include:

-YMCA of Centre County

- Curves of State College

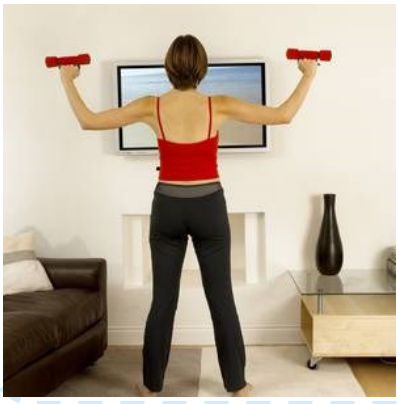
-visitpennstate.org lists many different fitness events

Risks of Sedentary Lifestyle

- Sitting for 8 hours a day, or 3 hours without break can cause many adverse health effects, increasing your risk of diabetes by 23% and heart disease by 14%.
- Being sedentary while working, watching TV, playing board games, or video games your risk of obesity increases by 5% and for diabetes by 7%.

How to Reduce Sedentary Behavior:

- Taking only a 4-minute break every 2-3 hours can immensely improve the negative effects of sedentary behavior.
- In the office or at home, use this break to stretch your legs, walk around, or grab a drink of water
- By sitting for only 5 hours, or less per day you can add 2-3 years onto your life
- Limit TV to 2 hours or less per day
- In the office:
    - Use a stability ball at work; instead, of a standard office chair. You could even alternate time spent sitting between the two.
    - Instead of emailing a co-worker, go and talk to them.
- At Home:
    - During Commercial breaks: clean, or do a form of light exercise.
    - Stand when reading the newspaper and other activities.
    - Plan social gatherings and events around physical activity.



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