Physical activity motivation in our busy lives: Busting the top 2 exercise excuses – lack of time and lack of motivation

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I. **Kay Hongu,** Extension Specialist, Department of Nutritional Sciences

II. **Benefits of Physical Activity (PA)**
   1. PA saves lives and protects health (CDC)
   2. PA – key factor for weight loss and weight management
      1. High Energy Flux Concept
      2. Why you cannot lose weight on Diet? – The “Biggest Loser” study

III. **Obstacles preventing regular PA**
   1. Lack of time >>> tips to overcome
   2. Lack of motivation >>> tips to overcome

V. **Questions & Answers**
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Education and Training

- Post-Doctoral Fellowship - Vanderbilt University, Department of Medicine, and Meharry Medical College, Nashville, TN
- Ph.D. - Human Ecology: The University of Tennessee, Knoxville, TN (Specialization: Nutritional Sciences, Exercise Physiology)
- M.Ed. - The University of Akron, Akron, OH (Specialization: Exercise Physiology, Physical and Health Education)
- B.A. - Education/Physical Education: Mukogawa Women's University, Hyogo, Japan

Research and Extension Interests

- Nutrition and PA research & education – Walk Across Arizona program, HomeStyles Project
- Innovation & Technology Development – Recaller app
- Environmental Sustainability & Healthy Lifestyle

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Benefits of Physical Activity

“Exercise is Medicine” - “If exercise could be packed in a pill, it would be the single most widely prescribed and beneficial medicine in the nation.” (Robert N. Butler, MD, National Institute on Aging)

**PHYSICAL ACTIVITY SAVES LIVES AND PROTECTS HEALTH**

1 in 10 premature deaths could be prevented by getting enough physical activity.

It could also prevent:

- 1 in 8 cases of breast cancer
- 1 in 8 cases of colorectal cancer
- 1 in 12 cases of diabetes
- 1 in 15 cases of heart disease

“Physical activity is the closest thing we have to a wonder drug.”

Dr. Tom Frieden, CDC Director
Physical Activity Guidelines

Guidelines: PA Guidelines for Americans, CDC, AHA, ACSM

- To maintain your weight – 150 minutes of moderate-intensity activity a week
- You may need to do more than 150 minutes
- To lose weight and keep it off – need high amount of PA
- Strength training – increase lean body mass

2018 The Physical Activity Guidelines for Americans will be released in the future.

The Office of Disease Prevention and Health Promotion

http://health.gov/
Physical Activity for a Healthy Weight

- Most weight loss occurs because of decreased caloric intake. However, evidence shows the only way to maintain weight loss is to be engaged in regular PA.

- Greater amounts of PA are likely to be needed to achieve weight loss and prevent weight regain in adults.

- Energy/diet restriction combined with PA will increase weight loss as compared to diet alone.
Concept of High Energy Flux

- Yo-Yo Diet

Diagram showing the concept of high energy flux through a yo-yo diet scenario.
Concept of High Energy Flux

- Resting Metabolic Rate
- Lean Mass
Concept of High Energy Flux

![Diagram of energy intake and body weight relationship]

- Physical Activity
- Energy Intake
- Body Weight

“Unregulated” Zone
“Regulated” Zone

Physiological Activity
Why you cannot lose weight on diet alone?

- **Persistent metabolic adaptation 6 years after “The Biggest Loser” competition** (Fothergill et al, Obesity, May 2016)

  - **Objective:** To measure long-term changes in RMR and body composition in participants of “The Biggest Loser” competition.
  
  - **Methods:** Body composition was measured by dual energy X-ray absorptiometry, and RMR was determined by indirect calorimetry at baseline, at the end of the 30-week competition and 6 years later.
  
  - **Results:** 6 men and 8 women, 34.9 ± 10.3 years, 148.9 ± 40.5 kg at baseline, lost 58.3 ±24.9 kg at the end of the 30-week competition.
Why you cannot lose weight on diet alone?

Individual (●) and mean (gray rectangles) changes in (A) body weight, (B) fat-free mass, and (C) fat mass at the end of “The Biggest Loser” 30-week weight loss competition and after 6 years. Horizontal bars and corresponding $P$ values indicate comparisons between 30 weeks and 6 years. *$P < 0.05$ compared with baseline.
Why you cannot lose weight on diet alone?

Individual (•) and mean (gray rectangles) changes in (A) resting metabolic rate and (B) metabolic adaptation at the end of “The Biggest Loser” 30-week weight loss competition and after 6 years. Horizontal bars and corresponding P values indicate comparisons between 30 weeks and 6 years. *P < 0.001 compared with baseline.
Why you cannot lose weight on diet alone?

“The Biggest Loser” participants with the greatest weight loss at the end of the competition also experienced the greatest slowing of RMR at that time.

Similarly, those who were most successful at maintaining lost weight after 6 years also experienced greater ongoing metabolic slowing.

These suggest that overweight people should focus more on exercising in order to keep up RMR than on calorie restriction.
Obstacles preventing regular PA:

- Lack of time
- Lack of motivation
- Lack of specific goals
- Previous unenjoyable experiences of PA
- Don’t know where to start or what activities to do
Busting the Exercise Excuse

- Lack of time (barrier)

**Strategy:** Help participants plan and organize a day

Identify available PA time slots – cannot find?

1. Wake up earlier! (think… after work you may be too exhausted, too busy helping kids)
2. Cut down on media – surfing the internet, spending time on Facebook, etc.
3. Be an active while watching TV
   - push-ups, walking around during commercials
   - Sitting on a stability ball
4. Make PA part of routine, daily tradition, like brushing teeth
5. Mix socializing with exercising – planning PA events
Busting the Exercise Excuse

- **Lack of time (barrier)**

  Help participants *prioritize PA*

  1) *Schedule a PA appointment* – do as a doctor’s appointment

  2) Write it in your calendar, and treat it like any other appointment you can not miss

  3) Look at priorities and responsibilities, prioritize your PA that other obligations to others
Busting the Exercise Excuse

- **Lack of Motivation (barrier)**

**Strategy:** Evaluate an individual’s readiness for fitting PA in to busy lives using the transtheoretical model of behavior change (stages of change model)

**Stage 1 - Pre-contemplation:** Not ready to exercise nor interested in pursuing exercise. (They may have failed in the past and have giving up.)

- The benefits of exercise, how PA might be good, must be identified before talking about how to start PA program

**Stage 2 - Contemplation:** Thinking about pursuing exercise (thinking about making a behavior change).

- Try new and different PA options. Find ways to make PA more enjoyable. The goal at this stage is to make a commitment.
Lack of Motivation (barrier)

Stage 3 - Preparation: Doing something related to PA, but not meeting the guidelines for PA (individual intends to take action, usually within the next month).

- The goal of this stage is to create specific plan for regular PA. They should know how much, how hard (intensity), and types of PA they should be doing regularly.
- At this stage, new PA app, wristband activity monitor, or new exercise clothing may help motivated.
Busting the Exercise Excuse

- **Lack of Motivation (barrier)**

**Stage 4 - Action:** Meeting the PA guidelines for less than 6 months (engaging in behavior change for less than six months. This is the stage where people are most likely to drop out or give up).

- This stage requires more commitment and energy. Give reminders to exercise. Have a backup plan, and have a friends to work out.
Busting the Exercise Excuse

- **Lack of Motivation (barrier)**

**Stage 5 - Maintenance:** Meeting the PA guidelines for 6 months or more (individual is working on maintaining the health behavior).

- At this stage, PA has started to become a habit. The goal here is to prevent getting bored with routine workout. Change any part of routine, starting a new program, or joining a new class, if need it.
- Feel the benefits of regular PA and be proud of yourself!
Summary

- PA can improve health. People who are physically active live longer and have lower risks for some cancers, heart disease, type 2 diabetes, and other chronic diseases.

- Understanding concept of high energy flux and applying this approach to a weight management plan may help individual who are trying to lose weight.

- Lack of time and lack of motivation are the top 2 obstacles preventing regular PA. These obstacles can be overcome with re-thinking, planning, prioritizing of PA.

- The 5 stages of change model is useful framework that describes the series of PA behavior changes and it can be used to help people staying motivated and maintaining physical activity.