Physical Activity Knowledge

By: Nolan Gall
**Exercise vs Physical Activity**

**Physical Activity:** any bodily movement produced by skeletal muscles that results in energy expenditure.

**Exercise:** a subset of physical activity that is planned, structured, and repetitive and has as a final or an intermediate objective the improvement or maintenance of physical fitness.
Confusion

Organizations:

1995:
- Centers for Disease Control (CDC)
- American College of Sports Medicine (ACSM)

1996:
- Physical Activity and Health: A Report of the Surgeon General

2000:
- Surgeon General for Healthy People 2010
2008 Physical Activity Guidelines for Americans

Issued by: US Department of Health and Human Services

Purpose:

“The Federal Government has never before issued comprehensive physical activity guidelines for the Nation. HHS is publishing Physical Activity Guidelines for the first time with the 2008 Physical Activity Guidelines for Americans. The Guidelines represent the first major review of the science on benefits of physical activity in more than a decade.”

(hhs.gov)
Are We Active?

Only **3.5%** of Americans 20-59 years of age participate in physical activity for at least 30 min/day on at least 5 days/week

-(Troiano et al.)
Why should we be active?
Benefits

**Higher Quality of Life**

- Weight Control
- Cardiovascular Disease Risk Reduction
- Type II Diabetes Risk Reduction
- Strengthen Bones and Muscles
- Mental Health Improvements

-CDC
Effect on Depression

“The small but significant treatment effect suggests that PA may play a role in the prevention and treatment of depression in young people.”

-Brown et al.
Effect on Hypertension

“Exercise generally decreases both systolic and diastolic values by five to seven points occurring as early as three to four weeks after increasing physical activity levels.”

–American College of Sports Medicine
Decreasing the Risk of Type Diabetes Through Physical Activity

- The high-risk group consisted of 2,634 men who had at least one of the following risk factors: a body mass index ≥ 25, a history of hypertension, or a family history of diabetes. Type 2 developed in 135 of these men.

- The low-risk group consisted of 3,356 men not in the high-risk group; Type 2 developed in 67 of these men.

My Purpose

- Assess the baseline public knowledge of the government issued physical activity guidelines
Study Details

587 Respondents
11-item online questionnaire
61% Female 39% Male
Mean Age: 29
Median Age: 24
Mode Age: 22
Distribution Details

- Social Media
- Local Establishments
- Football Weekends
- $20 Gift Card Drawing

World Bar Codes
Results
Key Statistics

99.83% of participants believe physical activity is at least beneficial to one's health

37.65% of participants have not heard of government issued physical activity guidelines
Percentage of respondents who knew the recommendations

- Moderate-intensity: 26.92%
- Vigorous-intensity: 21.12%
- Children and Adolescent: 44.12%
Children Guideline Marketing

CDC

VERB
It's what you do.

Fuel Up to Play 60

Fuel Up to Play 60
What are the guidelines?

How can I meet the guidelines?
For Health Benefits

150 minutes of moderate intensity aerobic activity per week

75 minutes of vigorous intensity aerobic activity per week

Or an equivalent combination of both moderate and vigorous intensity physical activity

Muscle strength training on 2 or more days a week (working major muscle groups)

(CDC)
**MET** = Metabolic Equivalent

**MET**: the ratio of the rate of energy expended during an activity to the rate of energy expended at rest, given as a unit.

Resting metabolic rate for healthy adult:

3.5 ml/min/kg

(www.hhs.gov)
Defining Intensity Levels

Moderate Intensity:
- 3-5.9 METS
- 5 or 6 on a 10 point scale

“It will make you breathe harder and your heart beat faster. You'll also notice that you'll be able to talk, but not sing the words to your favorite song.”

(CDC)
Moderate Intensity Activities

Walking briskly
Bicycling slower than 10 mph
Ballroom Dancing
General Gardening

-CDC
Defining Intensity Levels

Vigorous Intensity:

- 6 or more METS
- 7 or 8 on a ten point scale

“Your heart rate will increase quite a bit and you'll be breathing hard enough so that you won't be able to say more than a few words without stopping to catch your breath.”

-CDC
Vigorous Intensity Activities

Jogging/Running

Bicycling greater than 10 mph

Hiking uphill with a heavy backpack

Heavy Gardening (continuous hoeing)

-CDC
Muscle Strengthening

Examples:
- Lifting weights
- Working with Resistance bands
- Body weight exercises
- Heavy Gardening
- Yoga

-CDC
Exercise is **NOT** Physical Activity

Live a **MORE** active life!
- Take the stairs
- Distant bathroom breaks