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## Practical methods of health behavior change: A discussion of two interventional studies

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# **Practical methods of health behavior change: A discussion of two interventional studies**



Kendall Johnson & Madeline Bremel

# How we got here

- Kendall
- Madeline
- Coordination

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# Health Behavior Change: Background

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- Why it is important
  - Creating sustainable behavior change: accountability and relationships
  - Comparing methods of intervention for behavior change
- Choice manipulation

# Methods of Behavior Change

1

Education

Madeline

2

Motivation

Kendall

3

Choice  
Manipulation

# Bone Health in College-aged Women

- Research Question: How do health behaviors change following a technology based and personal health intervention designed to educate college-aged women about bone health
- Brief methods
  - Delivered two interventions (technology based and personal) + a control
  - Compared:
    - Changes in knowledge before and after the intervention
    - Changes in behavior before and after the intervention

# Bone Health in College-aged Women

- No significant differences for behavior change over time or between groups
- Personal group experienced greater gains in knowledge than the control
  
- Behavior change is hard.
  - Designing health interventions for specific populations is important
  - College-aged individuals may exhibit some disconnect between health knowledge and behavior change

# Daily Steps of CSB/SJU Staff & Faculty

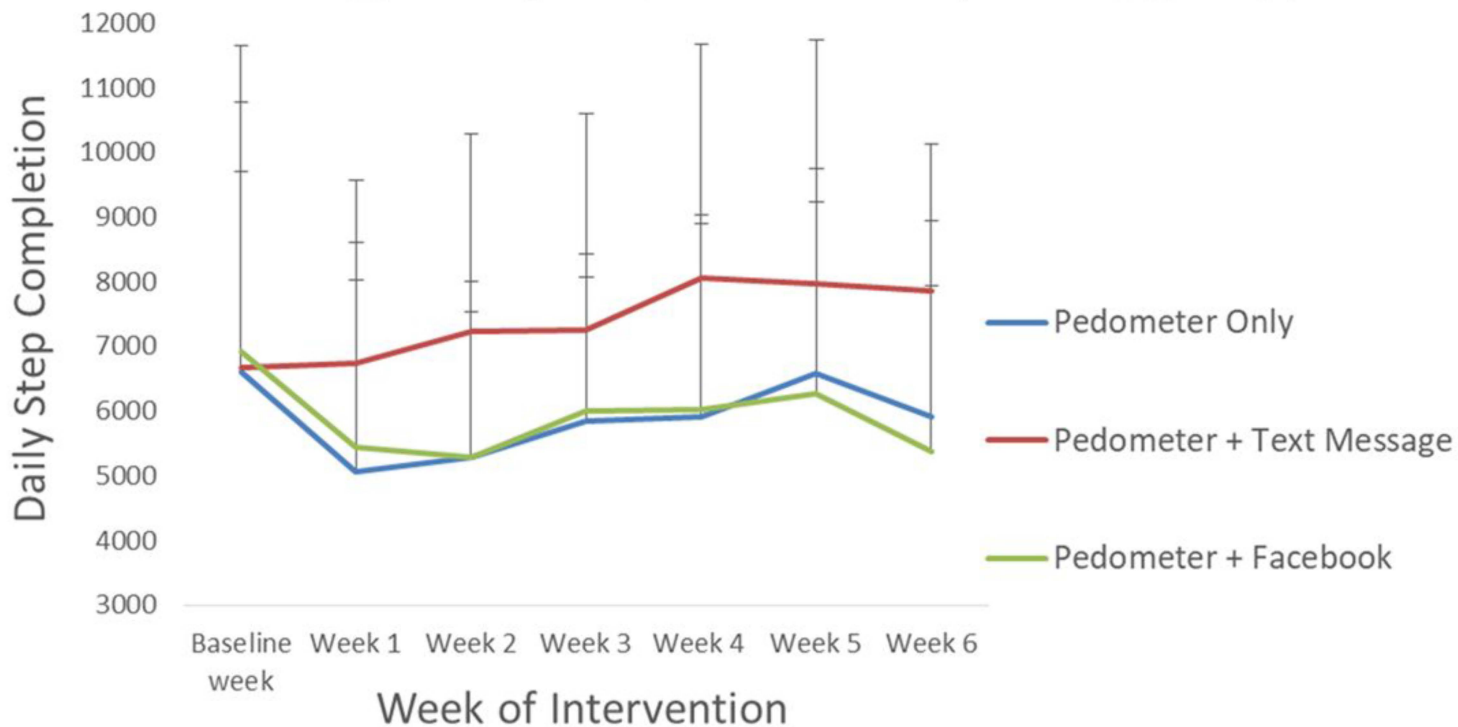
- Rising rates of sedentary lifestyles among the general population
  - More community and workplace interventions to encourage physical activity
  - Technology as a tool for motivation
- Research Question: What is the impact of text message and social media support on daily steps and health risks of CSB/SJU staff and faculty members?
- Methods: Baseline week, 6 week Intervention of 3 groups: “Pedometer Only”, “Pedometer + Text Message”, “Pedometer + Facebook”



# Daily Steps in CSB Staff/Faculty

- Major Findings
  - Steps, & chronic disease risk factors were not significantly different between groups and over time
- Feedback
  - n=19 out of 27 reported the study was “helpful”
  - However, accountability as a motivator

## Average Daily Steps Per Week (n = 10/group)



# Choice Manipulation

How would we apply choice manipulation in OUR studies?

# CONNECTIONS



# Technology-based Interventions

- Bone health in college-aged women
  - 90% of technology group participants gained knowledge from intervention
  - There was no significant degree of behavior change
  - It was difficult to get this group to complete questionnaires and the intervention
    - Limited accountability
- Daily steps in CSB/SJU staff and faculty - feedback
  - Facebook: comments about liking the articles, but not exactly motivational in the moment
  - Text messages: good reminders, but...
  - Accountability - self reporting steps

# Accountability

- Personal accountability vs. accountability to provider
  - How to encourage both
  - Key to forming new habits
- Seeing pedometer and having to report steps - motivator
  - Participants (n=7) identified accountability as the main motivator for behavior change.
- Contrastingly, an intervention without accountability lacks motivation and limits behavior change

# Why coordinate both education and motivation?

- Barriers we both experienced in our research...
- Integration of education and motivation might further increase behavior change
- Future Research: combining education, motivation, and choice manipulation

# **Motivation vs. Education:** Each might be successful for different groups/disease populations

**Lifestyle change:** motivation is important because people can easily get information, but need to be motivated to continuously change their behaviors

**Chronic disease:** education is important because information is much more complex and can be overwhelming

**Age groups:** are younger groups less able to change their behaviors based purely on education or knowledge change?

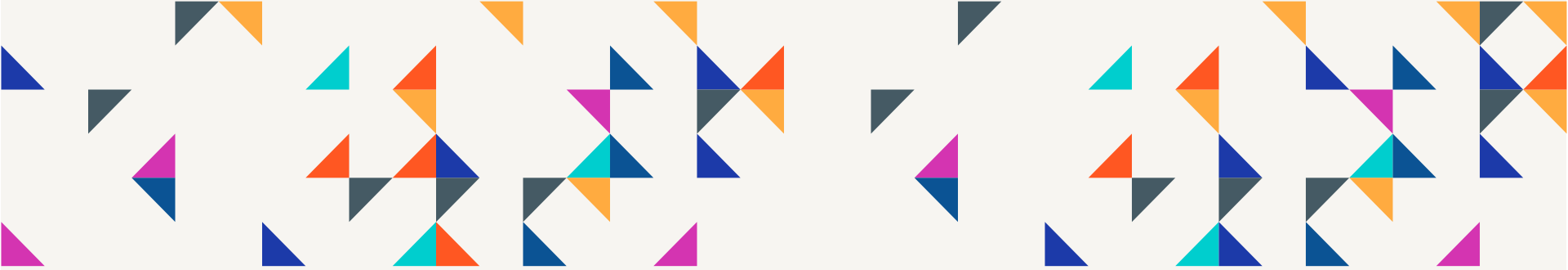
**Relationships:** In order to know what balance of methods of behavior change should be encouraged in a patient, the provider has to know the patient

**Individualized interventions:** Providers should consider the individual within the group when designing interventions



# Summary & Future Recommendations

- Coordinate education, motivation, and choice manipulation
  - Account for strengths of each method
  - Sustainable
- Pilot studies: identify individual motivators and barriers
  - Tailor program to needs and make personally relevant
  - Needs assessment
- Limitation in our studies: Participants probably did not participate in the study because they were not motivated to change their behaviors, but...
- HOLISTIC approaches tailored to the individual



Integration of methodology

Personalization of information

Patient-centered perspectives



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