

University of Nebraska
Medical Center

Community-Based Partnership: Weight Maintenance for Rural Midlife Women

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Presenter Disclosure

Teresa Barry Hultquist

The following Personal Financial Relationships with commercial interests relevant to this presentation existed during the past 12 months:


No relationships to disclose

Learning Objectives

- Identify environmental barriers to physical activity for rural women
- Appraise rural women's weight maintenance experiences and outcomes

Background

- Cardiovascular disease (CVD) is leading cause of death in adult women
- If maintained, weight loss of 5-10% of initial body weight can result in clinically meaningful CVD-related health benefits
 - Most who lose weight return to original weight within 5 years



Background

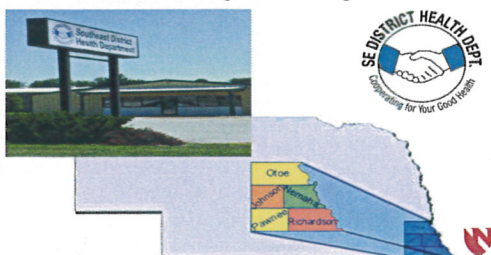
- Rural women more likely to:
 - Be physically inactive and obese
 - Have limited access to safe environments for physical activity
- In Nebraska (2012), 57.6% of adult Nebraska women & 64.2% of women in southeast Nebraska were considered overweight or obese

Study Purpose & Design

- Six month pilot study to evaluate the influence of **online interventions** to maintain initial weight loss by promoting physical activity to improve health management and health status among rural midlife (aged 40 to 64) women
- 52 women who reported losing at least 5% of body weight in last 6 months were randomized to two groups:
 - Standard Advice
 - Intervention

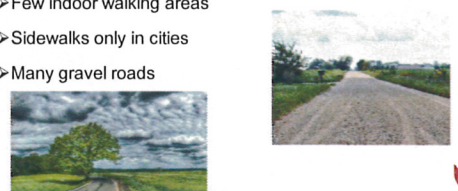
Community-Based Partnership

- Partnership between Southeast District Health Department and nurse researchers from UNMC College of Nursing



Barriers to Physical Activity

- Southeast Nebraska
 - 2,382 sq. miles
 - 6 fitness centers
 - 1 per every 397 sq. miles
 - Few indoor walking areas
 - Sidewalks only in cities
 - Many gravel roads
- Chicago Metro
 - 234 sq. miles
 - Over 700 fitness centers
 - 1 per every 0.3 sq. miles

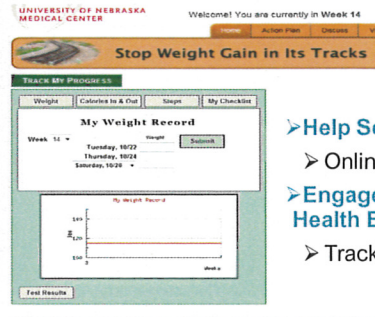


Assessments

Physical assessments at 2 sites:
Baseline, 3 months, 6 months

- Blood pressure
- Heart rate
- Weight & height
- BMI
- Waist circumference
- Current Physical activity
- Walk time (baseline & 6 months)

Standard Advice Group

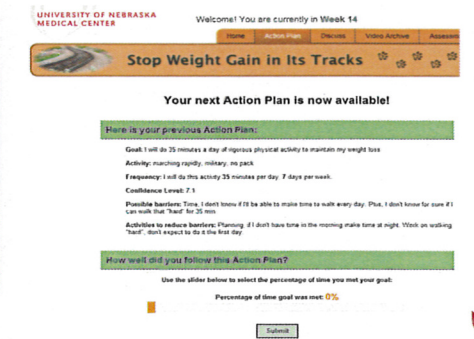


- Help Seeking
 - Online newsletters
- Engagement in Health Behavior
 - Tracking Weight

Intervention Group

- Personal (Self) Efficacy
 - Confidence level for physical activity
 - Identifying and reducing barriers
- Help Seeking
 - Watching videos
 - Using discussion boards
- Engagement in Health Behavior
 - Tracking weight, calories in/out, steps
 - Goal setting (action plans)

Action Plans



Your next Action Plan is now available!

Here is your previous Action Plan:

Goal: I will do 35 minutes a day of vigorous physical activity to maintain my weight loss

Activity: marching rapidly, military, no pack

Frequency: I will do this activity 35 minutes per day, 7 days per week.

Confidence Level: 7.1

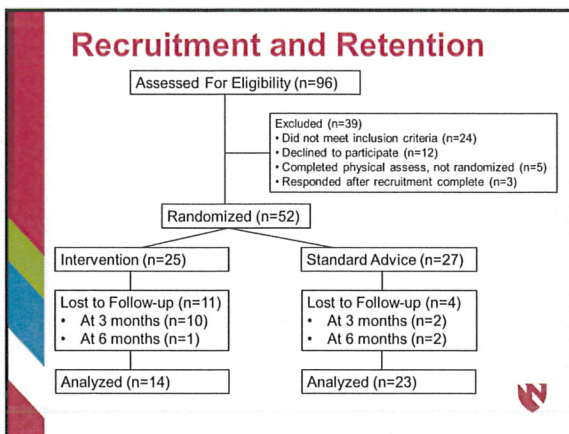
Possible barriers: Time. I don't know if I'll be able to make time to walk every day. Plus, I don't know for sure if I can walk that "fast" for 35 min.

Activities to reduce barriers: Planning. If I don't have time in the morning make time at night. Walk on walking "trail". Don't expect to do it the first day.

How well did you follow this Action Plan?

Use the slider below to select the percentage of time you met your goal.

Percentage of time goal was met: 0%



Results

- All Subjects (n=52)
 - Average age: 53 (SD = 5.3)
 - No significant differences between groups
 - 90% (n=47) married
 - 90% (n=47) working
 - 94% (n=49) had health insurance
 - 100% (n=52) had at least 12 years of education

Results

- All Subjects (n=52)
 - Location:
 - 46% (n=24) lived on ranch/farm or out of town
 - 54% (n=28) lived in a small town
 - 31% (n=15/49) had to travel 20 miles or more for emergency medical care

Results

- All Subjects (n=52)
 - 83% (n=43) lost weight using diet & exercise
 - 88% (n=22/25) for intervention group
 - 78% (n=21/27) for standard advice group
 - 65% (n=34) had lost weight 3 or more times
 - 72% (n=18/25) for intervention group
 - 59% (n=16/27) for standard advice group

Results

- For subjects completing study (n=37):
 - 65% (n=24) had lost weight 3 or more times
 - 71% (n=10/14) for intervention group
 - 61% (n=14/23) for standard advice group
 - 93% (n=13/14) of intervention group maintained their weight over the 6 month period
 - 65% (n=15/23) of the standard advice group maintained their weight over the 6 month period

Results

- Significant differences between groups (favoring intervention group)
 - Systolic blood pressure (p=.004, $\eta^2=.215$)
 - Weight (p=.044, $\eta^2=.114$)
 - BMI (p=.033, $\eta^2=.127$)

Using Cohen's small (0.01), medium (0.06) and large (0.14) values of η^2

Results

- Moderate effects between groups (favoring intervention group)
 - Diastolic blood pressure ($p=.079$, $\eta^2=.088$)
 - Waist circumference ($p=.094$, $\eta^2=.081$)

Using Cohen's small (0.01), medium (0.06) and large (0.14) values of η^2



Conclusions/Recommendations

- **Partnerships** between universities and public health departments:
 - Assist in recruitment and retention
 - Provide opportunities for collaboration
 - Build capacity to address health issues
 - Are sustainable
- **Analyze** intervention burden to determine best fit of interventions for participants
- **Develop** targeted strategies for rural women

