Working Towards a Healthy Weight – Programs and Strategies to Support Clients

PBHCI Monthly Webinar
December 19, 2014

Audio and Control Panel Instructions

On the phone?
“Raise your hand” and we will open up your lines for you to ask your question to the group. (Right)

Using computer speakers?
Type into the question box and we will address your questions. (Left)
Today’s Presenters

**Steve Bartels**, MD, MS, Director, Centers for Health and Aging, Professor of Psychiatry, Community and Family Medicine, and TDI Geisel School of Medicine at Dartmouth

**Nathan Gammill**, FNP, Project Director, Making Healthy Choices, Postgraduate Center for Mental Health, NY

Reversing Early Mortality Due To Obesity and Cardiovascular Risk Factors In Mental Illness: *What Works In Changing Health Behaviors?*

Steve Bartels MD, MS
Director, Centers for Health and Aging
Professor of Psychiatry, Community and Family Medicine, and TDI Geisel School of Medicine at Dartmouth
Disclosures

Grant Funding:
- NIMH
- CDC
- HRSA
- Endowment for Health
- CMS

Consultant:
- Substance Abuse and Mental Health Administration

Overview

- Obesity risk factors and cardiovascular mortality
- Findings from the research literature on physical activity and weight loss interventions for persons with mental illness
- What is more (and less) likely to work
- Recommendations
Determinants Of Health

Lifestyle 5X Health Care

Factors Affecting Premature Death in the Population:

Health Behaviors 4X Health Care

HOW WE GOT HERE

Cardiovascular Disease Is Primary Cause of Death in Persons with Mental Illness*


Colton & Manderscheid, 2006
http://www.cdc.gov/ncidod/dv小编一起/2006/april/05_0180.htm
Cardiovascular Disease (CVD) Risk Factors

<table>
<thead>
<tr>
<th>Modifiable Risk Factors</th>
<th>Estimated Prevalence and Relative Risk (RR)</th>
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<tbody>
<tr>
<td></td>
<td>Schizophrenia</td>
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<tr>
<td>Obesity</td>
<td>45–55%, 1.5-2X RR(^1)</td>
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<tr>
<td>Smoking</td>
<td>50–80%, 2-3X RR(^2)</td>
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<tr>
<td>Diabetes</td>
<td>10–14%, 2X RR(^3)</td>
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<tr>
<td>Hypertension</td>
<td>(\geq18)%(^4)</td>
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<td>Dyslipidemia</td>
<td>Up to 5X RR(^8)</td>
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Selected Risk Factors Attributable to Premature Mortality Worldwide

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<tr>
<th>Attributable Risk Factor</th>
<th>Percentage of Annual Deaths</th>
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<tbody>
<tr>
<td>High blood pressure</td>
<td>12.8%</td>
</tr>
<tr>
<td>Tobacco use</td>
<td>8.7%</td>
</tr>
<tr>
<td>High blood glucose</td>
<td>5.8%</td>
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<tr>
<td>Physical inactivity</td>
<td>5.5%</td>
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<tr>
<td>Overweight &amp; obesity</td>
<td>4.8%</td>
</tr>
<tr>
<td>High cholesterol</td>
<td>4.5%</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>42.1%</strong></td>
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World Health Organization, 2009
What is the Effectiveness of Health Promotion Programs for Persons with Serious Mental Illness?

What works more?
What works less?

Characteristics of Studies with Statistically Significant Results

- Duration ≥ 24 weeks
- BOTH Education and Activity
- BOTH Diet & Exercise
- Manualized & intensive programs
- Ongoing Measurement and Feedback of Success (e.g., Monitoring Physical Activity, Nutrition Change, Weekly Weights)
ACHIEVE
Achieving Healthy Lifestyles in Psychiatric Rehabilitation

18-month intervention with group and individual weight-management sessions and group exercise sessions
Control – standard nutrition and physical-activity information at baseline
N=291 participants with SMI (58.1% schizophrenia or schizoaffective)
At 18 months -3.2 kg in intervention compared to control (p=0.002)
37.8% in intervention group lost ≥5% body weight compared to 22.7% in control group (p=0.009)

Selected Results from ACHIEVE
STRIDE

Designed to reduce weight and obesity-related risk in people with SMI taking antipsychotic medication

N=144 participants

6-month intervention included diet and weekly 2-hour group meetings with 20 minutes of exercise

Intervention group lost 3.9% (6-month) and 4.5% (12-month) of baseline weight on average

Other important outcomes:

- Decreased fasting glucose (p=0.01)
- Decreased hospitalizations over 12-month period (p=0.01)

Green et al., Am J Psychiatry, 2014

Lifestyle/Fitness Programs for Overweight Persons with Serious Mental Illness
In SHAPE: Major Components

Health Mentors (certified personal trainers)
Individualized In SHAPE Plans
Access to local fitness facilities
Individual and group nutrition education
Smoking cessation referrals
Engagement of community partners

1st RCT (n=133):
At 12 months: **49%** in intervention group achieved either clinically significant increased fitness (>50 m on 6MWT) or weight loss (5% or greater)
2nd RCT (n=210) 51% achieved either clinically significant increased fitness (>50 m on 6MWT) or weight loss (5% or greater)
- In multiple routine care sites,
- In ethnically heterogeneous pop.
- With sustained outcomes

<table>
<thead>
<tr>
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<th>6-month</th>
<th>12-month</th>
<th>18-month</th>
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<tbody>
<tr>
<td>In SHAPE</td>
<td>41%</td>
<td>51%</td>
<td>46%</td>
</tr>
<tr>
<td>Fitness Club Membership and Education</td>
<td>37%</td>
<td>38%</td>
<td>37%</td>
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Fitness vs. “Fatness”

What if Weight Loss is Not Achieved?

Improved cardiorespiratory fitness vs. weight loss in cardiovascular and all-cause mortality: strongly associated with reduced risk...weight loss is not significant after adjusting for improved fitness.

Systematic review: all-cause mortality: >150 minutes moderate to vigorous physical activity/week = 86% reduced all cause mortality.

Mean increase in 6MWT 80 meters, clinically significant reduction in risk for cardiovascular and other chronic health conditions.

Lee et al., Circulation, 2011; Samitz et al., Int J of Epidemiol, 2011; Larsson & Reynolds, Physiotherapy Research International, 2008; Rasekaba et al., Intern Med J, 2009; Wise & Brown, Journal of Chronic Obstructive Pulmonary Disease,2005
We Know What Works

Can Behavioral Health Organizations Change Health Behaviors?
Rediscovering the Neck
Weight/Fitness Cardiovascular Risk Reduction by Site
(% with either > 5% weight loss or increase of > 50 meters on 6 minute walk test)

Site 1: Qualitative Component - Enhancing Effectiveness by Changing Organizational Culture

"It's about having this entire team approach to reinforcing the goals of the client… All of a sudden they had the doctors saying, "How's it going in In SHAPE?"

"Some of the clinical case managers have also played a role in monitoring the activity going on and jumping in if the person becomes less motivated or symptoms start to get in the way."

"We've got to shape behavior and so we have an environment that at any point in time might be able to reinforce change in behavior. What better way than if you have this treatment team that at every point is saying, "hey, how's it going in there? You did? That is excellent…. Reinforcing kind of this behavior change over time by various sources."
Site 3: Qualitative Component- Enhancing Health Home Wellness Outcomes through Integrated Health Promotion

“One of the things that we were doing prior to the grant was a walking group once a week… With the PBHCI grant we were able to do it multiple times a week. We were able to work with our peer support center and the YMCA actually allowed us to go three times a week and use their indoor track and what the peer support center did is that the provided transportation.

Among newly introduced wellness activities that were added to the implementation of a health home through the PBHCI program: Increased YMCA program, new nutrition class, Tai Chi and stretching classes, diabetes education program.

Principles of Effective Weight Loss Health Promotion Programs for Persons with Mental Illness

What works?
Recommendation:

1. **Most likely to be effective:**

   - Longer duration (at least 6 months)
   - Combine education and coached activity
   - Include both nutrition and physical exercise
   - Are evidence-based (proven effective by RCTs)

Recommendation:

2. **If weight loss is a primary goal:**

   - The nutritional component is critical and is more likely to be successful if it incorporates active weight management
   - Monitoring weight, changing diet and keeping track
Recommendation:

3. *If physical fitness is a primary goal:*

- (+) Activity based programs that provide active and intensive exercise and monitoring of physical activity

- (-) Programs solely providing education, encouragement, or support for engaging in physical activity.

Recommendation:

4. *Integration of Evidence-based Health Promotion as a Core Service:*

- Evidence-based health promotion consisting of combined physical fitness and nutrition programs should be an integrated component of mental health services seeking to provide overall wellness and recovery for persons with SMI.
Recommendation:

5. **Pursuing Weight loss vs. Fitness**

- Aggressively pursue dietary reform and weight management but also support the value of physical activity in achieving fitness independent of obesity.

Recommendation:

6. **Selecting a Health Promotion Program for Implementation:**

- Evidence-based: supported by rigorous outcome research (preferably RCTs)
- Manualized with training and supervision
- Feasible: Demonstrated track record of successful implementation and likely sustainability
The Spectrum of Integrated Physical Health Care: Integrated Health Promotion

Wellness Education → General Wellness Classes
Wellness Support Programs → General Wellness Classes and Activities (e.g. walking groups)
Weight Loss, Fitness, and Smoking Cessation → Wellness Coaches, Weight Management, Fitness Training, Smoking Cessation

The Bottom Line

*Both* obesity and poor fitness are killers
Changing health behaviors is HARD work but essential to improving health and life expectancy
The best studies demonstrate modest results in reducing obesity but better results in improving fitness
What works better? Intensive manualized programs that combine coached physical activity and dietary change lasting at least 6 months (or more)
Clinically significant weight loss is likely to be achieved by some, but improved fitness by more…..and both are important for heart health
The In SHAPE Health Promotion Program
From Inception to Dissemination and Implementation

Community Development
Identification of Need, Community Coalition
Development of In SHAPE Model (2002)

Effectiveness RCT Studies (CDC, NIMH) (2006-2012)

Implementation Research
Statewide Implementation and Evaluation 2009-2014
“RCT of a Learning Collaborative Implement Health Promotion in Mental Health” NIMH R01 MH102325 2015-2020

Just Funded by NIH: Study Evaluating How to Best Implement Health Promotion for Obesity (In SHAPE) in 48 Mental Health Organizations Across the Nation

http://www.thenationalcouncil.org/training-courses/dartmouths-shape-implementation-study/
First Cohort of 16 Implementation Sites (Final n=48)

Resources: Health promotion for persons with serious mental illness

SAMHSA resource: Research Review of Health Promotion Programs for People with Serious Mental Illness
http://www.integration.samhsa.gov/health-wellness/wellnesswhitepaper

SAMHSA resource: Health Promotion Resource Guide: Choosing Evidence-based Practices for Reducing Obesity and Improving Fitness for People with Serious Mental Illness
Practical Weight Management
Strategies for Promoting, Securing, and Sustaining Weight Loss in a SMI Population - 2014

Nathan Gammill, FNP
Project Director, Making Healthy Choices
Postgraduate Center for Mental Health, NY

Project Overview

- **Project Goal**: to help PCMH consumers live healthier, more productive lives through Wellness programming that includes screening, linkage, group education, and goal-directed activities.

- **Model**: onsite Wellness programming; screening, and linkage with primary care in collaboration with a participating FQHC, the Ryan-Chelsea Clinton Community Health Center.
MHC-Obesity Management Component

PCMH-MHC Procedural Workflow:

- Secure executive buy-in and interdepartmental integration.
- Provide an orientation to our program and services.
- All new admissions are screened for obesity:
  - The PHE calculates BMI during intake.
  - The NP does a health assessment, including PMH and pharmacotherapy.
  - Consumer is linked with appropriate MHC/Ryan Center services and given a program calendar and food/activity journal.

In-house Services

- The roster of MHC services includes groups, activities, and workshops.
- Nutrition, Weight Management, and Weight Watchers groups provide the conceptual underpinnings for our weight loss/weight management track.
- Biweekly healthy meal preparation classes are offered to provide practical ADL skills to reinforce didactic learning.
- Exercise activities, are offered daily in the gym, theater, or exercise room, including activities that leverage partnerships with outside vendors: Dhara Yoga (Jenna Ritter) and ETD (Eryc Taylor Dance).
Reassessment and Troubleshooting

- Per project protocol, six month and twelve month reassessments are conducted on all enrolled MHC consumers.
- Consumers who are interested in weekly monitoring can schedule individual consultations with the PHE/NP or alternatively, work with the Weight Watchers group.
- Excel is used to generate a consumer report card and track consumer progress.
- Journaling allows for troubleshooting.
- Our EMR, eClinicalWorks, can search structured data to generate a consumer list for targeted intervention.
Questions?

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Thank You!

For more information:

Supporting Clients to Make Healthy Food Choices and Increase Physical Activity: A Provider Action Brief
http://www.integration.samhsa.gov/health-wellness/Healthy_Eating_Provider_Action_Brief.pdf

Health Promotion Resource Guide

Why Weight? A Guide to Discussing Obesity & Health With Your Patients (by the Strategies to Overcome and Prevent (STOP) Obesity Alliance)
http://www.stopobesityalliance.org/research-and-policy/alliance-initiatives/health-care-providers/
Please Join Us Next Month

Monitoring for Metabolic Syndrome
Friday, January 16, 2014
3:00 – 4:00 PM ET
Registration link forthcoming