Best Practices In Health and Wellness: What Works In Changing Health Behaviors?

Joan Kenerson King RN, MSN, CS

Original PowerPoint: Steve Bartels MD, MS: Director, Centers for Health and Aging; Professor of Psychiatry, Community and Family Medicine, and TDI
Kathleen Reynolds, Vice President of Health and Wellness, The National Council

Ohio Health Home: Health Promotion

Chronic disease self-management
- Tobacco cessation
- Weight management
- Nutritional counseling
- Exercise and fitness
- Preventive services and screenings
Why health promotion?

Determinants of Health

- What Factors Account for Health?
- What Factors Account for Premature Mortality?

- How Much is Due to Health Care?
- How Much is Due to Other Factors
  - Genetics, Socioeconomic Factors, Environment, Health Behaviors, etc.
Selected Risk Factors
Attributable to Premature Mortality Worldwide

<table>
<thead>
<tr>
<th>Attributable Risk Factor</th>
<th>% of Annual Deaths</th>
</tr>
</thead>
<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>
</tr>
<tr>
<td>Physical inactivity</td>
<td>5.5%</td>
</tr>
<tr>
<td>Overweight &amp; obesity</td>
<td>4.8%</td>
</tr>
<tr>
<td>High cholesterol</td>
<td>4.5%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>42.1%</strong></td>
</tr>
</tbody>
</table>


Cardiovascular Risk Factors
Add UP! The “Perfect Storm”

The Framingham Study

BMI = body mass index; TC = total cholesterol; DM = diabetes mellitus; HTN = hypertension.

Factors Affecting Premature Death in the Population:

**Health Behaviors** 4X  
Health Care

Determinants Of Health (World Health Organization)

**Lifestyle** 5X  
Health Care
The Good News: Reducing Risks of Cardiovascular Disease

- Maintenance of ideal body weight (BMI = 18.5-25)
  - 35%-55% ↓ in CVD
- Maintenance of active lifestyle (~30-min walk daily)
  - 35%-55% ↓ in CVD
- Cigarette smoking cessation
  - ~ 50% ↓ in CVD

Obesity Risk Factors for Persons with SMI

- Obesity: > 42% (vs. 28% gen pop)
- 3-6X greater risk of metabolic syndrome
- Regular Moderate Exercise < 20%
- Compared to the general population:
  - Fewer fruits and vegetables
  - More calories and saturated fats
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

What is the Effectiveness of Health Promotion Programs for Persons with Serious Mental Illness?

What works more?
What works less?
Health Promotion and Serious Mental Illness

24 Studies

Randomized Controlled Trials
N=12
- Nutrition Only n=3
  - Education n=2
  - Activity n=0
  - Education + Activity n=1
- Exercise Only n=1
  - Education n=0
  - Activity n=1
  - Education + Activity n=0
- Nutrition + Exercise n=8
  - Education n=4
  - Activity n=1
  - Education + Activity n=3

Non-randomized Comparison
Studies
N=6
- Nutrition Only n=0
  - Education n=0
  - Activity n=0
  - Education + Activity n=0
- Exercise Only n=0
  - Education n=0
  - Activity n=0
  - Education + Activity n=0
- Nutrition + Exercise n=5
  - Education n=4
  - Activity n=1
  - Education + Activity n=5

Pre-post Outcome Studies
N=6
- Nutrition Only n=1
  - Education n=0
  - Activity n=0
  - Education + Activity n=1
- Exercise Only n=0
  - Education n=0
  - Activity n=0
  - Education + Activity n=0
- Nutrition + Exercise n=5
  - Education n=4
  - Activity n=1
  - Education + Activity n=4

Randomized Controlled Trials
N=12
Non-randomized Comparison
Studies
N=6
Pre-post Outcome Studies
N=6

Characteristics of Studies with Significant Positive Findings (n = 16)

<table>
<thead>
<tr>
<th>Main Component</th>
<th>Education</th>
<th>Activity</th>
<th>Education + Activity</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nutrition</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Nutrition + Exercise</td>
<td>4</td>
<td>1</td>
<td>8</td>
<td>13</td>
</tr>
<tr>
<td>TOTAL</td>
<td>5</td>
<td>1</td>
<td>10</td>
<td>16</td>
</tr>
</tbody>
</table>

NationalCouncil
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)

Limitations

- To date, clinically significant mean weight loss (>5%) has been elusive.....
- Studies generally limited to:
  - brief duration (3-6 months)
  - Small study samples
  - Few well-designed RCTs
SUMMARY:

- Most of the studies showed statistically significant weight loss
- Among the few studies reporting the proportion of individuals achieving clinically significant (>5%) weight loss as many as 38% met this goal
- Among the few studies reporting fitness (6MWT) even more achieved clinically significant improved fitness

Recommendation:

- 1. **Most likely to be effective:**
  - Longer duration
  - Manualized combined education and activity-based approach
  - Both nutrition and physical exercise
  - Evidence-based (proven effective by RCTs)
Recommendation:

2. **Less likely to be successful:**
   - Briefer duration interventions
   - General wellness or health promotion education-only programs
   - Non-intensive, unstructured, or non-manualized interventions
   - Programs limited to nutrition only or exercise only (as opposed to combined nutrition and exercise).

Recommendation:

3. **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:

>4. 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:

>5. 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 supporting wellness and recovery.
Recommendation:

6. *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:

7. *Measuring Outcomes and Fidelity*

- Physical fitness and weight outcomes and program fidelity should be objectively and reliably measured as a core indicator of quality mental health services.
Recommendation:

>8. 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 sustainability

**Resources**

- Nutrition and Exercise for Wellness and Recovery: *Catana Brown, Jeannine Goetz and Cherie Bledsoe*
Smoking Cessation

Smoking Prevalence by Diagnosis Across Studies

- Major depression: 36-80 percent
- Bipolar mood disorder: 51-70 percent
- Schizophrenia: 62-90 percent
- Anxiety disorders: 32-60 percent
- Post-traumatic stress disorder: 45-60 percent
- ADD/ADHD: 38-42 percent
- Alcohol abuse: 34-93 percent
- Other drug abuse: 49-98 percent

References:
- Beckham et al., 1995; Boyd et al., 1996; Budney et al., 1993;
- Burling et al., 1988; Clemmey et al., 1997; de Leon et al., 1995;
- Grant et al., 1996; Hughes, 1996; Ison & Matarazzo, 1984; Lasser et al., 2000; Morris et al., 2000; Orosz et al., 1995; Stone et al., 1992; Duka & Campbell, 1993; Ziedonis et al., 1994
Can we make a difference?

People we serve:
> Need to quit
> Want to quit
> Can quit

We can help.

Monitoring:

> Nicotine withdrawal: more severe in this population
> Exacerbation of psychiatric disorder
> Possible side effects due to cessation induced increased in medication levels.
Smoking Cessation Groups for People with SMI
> Cessation programs for people with mental illnesses
> include about 7-10 sessions. Typically, there is
  • an introduction to tobacco history and prevalence of use
  • education about the properties of nicotine, health effects of tobacco and addictive nature of smoking
  • a review of the reasons why people smoke
  • Education about ways one can quit smoking, use of medication and development of a quit plan

Based on the 5 A’s
> Ask
> Advise
> (Refer)
> Assess
> Assist
> Arrange
On Line Free Resource:

> [Link](http://www.integration.samhsa.gov/images/res/Mental%20Health%20Tobacco%20Cessation%20Toolkit%20January%20202009.pdf)

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