Weight’s up Doc? Efficacy of Physician Weight Loss Counseling

Kathryn I. Pollak, PhD
Duke University
Overview

- Motivational Interviewing techniques
- MI in primary care weight loss discussions
- Patient responses to MI
How to Counsel: MI

- What is MI?
  - Patient-centered
  - Directive
  - Patient is expert, not physician
MI Spirit: Collaboration
MI Spirit: Acceptance

“Could a greater miracle take place than for us to look through each other’s eyes for an instant?”

- Henry David Thorough
MI Spirit: Evocation
MI Spirit: Compassion
Interaction techniques (OARS)

- Open-ended questions
- Affirm
- Reflective listening
- Summarize
How to Counsel: MI

- Open-ended questions
  - Cannot be answered with yes/no
  - Start with Why, What, and How
How to Counsel: MI

- Affirm
  - Praise opportunities
  - Reinforce positives rather than negatives
“What fits your busy schedule better, exercising one hour a day or being dead 24 hours a day?”
How to Counsel: MI

- Reflective listening
  - Statements, not questions
  - 2 to 1 ratio recommended
How to Counsel: MI

- Summarize
  - Series of reflections
  - Often ends with a check-in
Principles of MI

- Express empathy
- Develop discrepancy
- Roll with resistance
- Support self-efficacy
Express empathy

“Go ahead. Tell me your troubles. I promise to say ‘Awww’ in all the right places.”
Develop discrepancy
Develop discrepancy

- Open-ended questions

- Reflective listening

- Good and not so good things
Rolling with resistance
Rolling with resistance

- Naming and reframing
- Emphasize personal choice and control
Supporting self-efficacy

- Recognize and affirm past successes
- Reframe negative thoughts
RULE: Resisting righting reflex
RULE: Understand pt motivation

MOTIVATION
It's not that I'm lazy, it's that I just don't care.
RULE: Listen to patient
RULE: Empower the patient
**What we often do**

- Doctor sets agenda → Doctor supports autonomy
- Educate → Collaborate
- Confront → Evoke pt’s reasons to change
- Make assumptions → Be curious about patient
- Doctor as authority → Doctor is a consultant
- Doctor talks more → Patient talks more

**Motivational Interviewing**
How do you do this in 3 min???

• 5 A’s
  ◦ Ask
  ◦ Advise
  ◦ Assess
  ◦ Assist
  ◦ Arrange
Ask

- Open-ended question to see what your patient thinks about his/her behavior

- “What do you think about your weight?”

- Reflect thoughts back
Advise

- Ask permission

- Non-judgmentally express your concern

- “As your physician, I need to tell you that I’m concerned about your weight. The best thing you could do for your health right now is to lose weight.”
Assess

- Assess how willing patient will change
- “What would you like to do about your weight right now?”
Assist

- Assist patients regardless of how willing they are
  - Importance ruler
  - Confidence ruler
  - Commitment ruler
- Write down patient’s motivations in his/her chart
- Summarize and have patient set a goal
Arrange

- Arrange a follow-up visit to check on goal

- “You have made some great goals. I’d like to see you back in 2 months to see how you are doing. Please don’t worry if it doesn’t go exactly as you planned. I’m here to help you problem-solve and come up with new plans if these don’t work.”
MI in weight loss discussions
Definitions, prevalence, trends

- **BMI cut-off for adults:**
  - Below 18.5: Underweight
  - 18.5 to 24.9: Normal
  - 25.0 to 29.9: Overweight
  - 30.0 and Above: Obese

- **BMI cut-offs for children and adolescents** are based on BMI for age.
Men, Age 20+

Women, Age 20+

Why are more adults obese?
Why are more adults obese?
Project CHAT study outcomes
Aims

- To describe how physicians address weight in primary care visits
- To determine whether addressing weight-related topics leads to patient weight loss
Aims

• To examine whether MD use of MI techniques during weight loss discussions leads to patient
  ◦ Weight loss
  ◦ Improved nutrition
  ◦ Increased physical activity
  ◦ Higher patient satisfaction
  ◦ Higher perceived autonomy support

• To explore which physicians are more likely to use MI techniques
Method

- Project CHAT (Communicating Health: Analyzing Talk)
- Audio recorded encounters between
  - 40 primary care physicians
  - 461 overweight and obese patients
  - 320 that included weight-related discussions were analyzed
- Neither patient nor physician were told study was about weight
Encounters: Weight-related content

- Weight/BMI
- Nutrition
- Physical activity
## Encounters: MITI codes

<table>
<thead>
<tr>
<th>Type</th>
<th>Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Closed question (ICC=.82)</td>
<td>Have you tried the South Beach diet?</td>
</tr>
<tr>
<td>Open question (ICC=.78)</td>
<td>What is keeping you from exercising?</td>
</tr>
<tr>
<td>Simple reflection (ICC=.45)</td>
<td>You don’t have time to exercise.</td>
</tr>
<tr>
<td>Complex reflection (ICC=1.0)</td>
<td>It sounds like eating out makes it difficult for you to make good food choices.</td>
</tr>
<tr>
<td>MI consistent (ICC=.70)</td>
<td>How can I help you to start exercising and lose weight?</td>
</tr>
<tr>
<td>MI inconsistent (ICC=.77)</td>
<td>You need to lose a pound a week.</td>
</tr>
<tr>
<td>MI Spirit (ICC=.70)*</td>
<td>Evocation, collaboration, autonomy</td>
</tr>
<tr>
<td>Empathy (ICC=.81)*</td>
<td>Shows understanding</td>
</tr>
</tbody>
</table>

* MI Spirit and Empathy were rated as global scores
“The handle on your recliner does not qualify as an exercise machine.”
Outcomes (n=426)

- **Weight**
  - Calibrated scale
  - Remove shoes, items in pockets
- **Nutrition**
  - Kristal Fat and Fiber Scale
- **Physical activity**
  - Framingham Physical Activity Scale
Surveys

• Patient covariates
  ◦ 14 factors assessed at baseline
  ◦ Gender, age, race, education, economic security, new patient, comorbid conditions (diabetes, hypertension, arthritis, hyperlipidemia), BMI, motivation to lose weight, confidence about losing weight, and comfort discussing weight.
  ◦ Distractor items
Surveys

- **Physician covariates**
  - 11 factors assessed at baseline
  - Gender, age, race, BMI, specialty, years since medical school, confidence about counseling about weight, outcome expectations for counseling about weight, comfort discussing weight, and barriers for counseling about weight.
  - Distractor items
Surveys

- Relationship covariates
  - 2 factors assessed at baseline
  - Gender concordance and race concordance
Surveys

- Visit covariates
  - 3 factors assessed at baseline
  - Type of visit, whether patient felt physician was rushed, whether physician felt rushed
Surveys

• Patient satisfaction 9 items (Rubin, 1993; $\alpha = .79$)
  ◦ In terms of satisfaction, how would you rate each of the following
    • “The technical skills (thoroughness, carefulness, competence) of the physician you saw”
    • “Time spent with the physician you saw”
    • 1 = Poor, 2 = Fair, 3 = Good, 4 = Very good, and 5 = Excellent
  ◦ Dichotomized at “excellent” vs. “not excellent” (Makoul, 2007)
Surveys

• Perceived autonomy 15 items (Williams, 1996; \( \alpha = .94 \))
  ◦ “I feel that my physician has provided me choices and options”
  ◦ “I feel understood by my physician”
  ◦ 1=Strongly disagree to 5=Strongly agree
  ◦ Dichotomized at \( \geq 75 \) vs. < 75
## Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Patient (n=461)</th>
<th>Physician (n=40)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>58 (13)</td>
<td>47 (8)</td>
</tr>
<tr>
<td>White</td>
<td>61%</td>
<td>85%</td>
</tr>
<tr>
<td>Female</td>
<td>66%</td>
<td>60%</td>
</tr>
<tr>
<td>&gt; HS</td>
<td>68%</td>
<td>100%</td>
</tr>
<tr>
<td>Higher economic security</td>
<td>88%</td>
<td>--</td>
</tr>
<tr>
<td>Family physician</td>
<td>--</td>
<td>48%</td>
</tr>
</tbody>
</table>
## Results

<table>
<thead>
<tr>
<th>Quantity</th>
<th>M (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nutrition</td>
<td>85.4 (106.0)</td>
</tr>
<tr>
<td>Physical activity</td>
<td>57.0 (67.0)</td>
</tr>
<tr>
<td>BMI/weight</td>
<td>42.1 (72.7)</td>
</tr>
<tr>
<td>Total weight-related</td>
<td>200.1 (196.8)</td>
</tr>
</tbody>
</table>
## Results

<table>
<thead>
<tr>
<th>Quality: MI techniques</th>
<th>M (SD) or %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Empathy (1-5 scale)</td>
<td>1.04 (0.25)</td>
</tr>
<tr>
<td>MI Spirit (1-5 scale)</td>
<td>1.04 (0.21)</td>
</tr>
<tr>
<td>Any Reflections</td>
<td>38%</td>
</tr>
<tr>
<td>Any MI Consistent Behaviors</td>
<td>49%</td>
</tr>
<tr>
<td>Any MI Inconsistent Behaviors</td>
<td>82%</td>
</tr>
</tbody>
</table>
Did talking about weight lead to weight loss?

- **Weight change**
  - Weight change was 0.0 kg (95% CI = -0.03, 0.4)

- **Discussed weight**
  - Weight change 0.1 kg (95% CI = -0.7, 0.8. p=.84)
Did MI lead to weight loss?

- **MI Spirit**
  - Weight change 1.6 kg (95% CI=-3.0, -0.2, p=.03)

- **Reflections**
  - Weight change 0.9 kg (95% CI=1.8, -.01, p=.05)

- **MI Consistent behaviors**
  - Weight change 1.1 kg (95% CI=-2.4, 0.2, p=.10)

Did MI lead to improved nutrition?

- **Empathy**
  - Improvement in Fat and Fiber scale of .18 units (95% CI=0, 0.4, p=.03)

- **MI Consistent behaviors**
  - Patients has higher confidence to improve nutrition (OR=2.57, CI=1.2, 5.7)

Patient satisfaction and autonomy support

- Patient satisfaction was low
  - Only 11% rated physician as “excellent”
  - No physician had more than 60% of encounters rated as excellent

- Patient autonomy was higher
  - 38% rated physician as highly supportive

Did MI lead to higher patient satisfaction autonomy support?

<table>
<thead>
<tr>
<th>MI variable</th>
<th>Patient satisfaction(^1)</th>
<th>Autonomy support(^2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MI Spirit &gt; 1</td>
<td>8.3 (3)</td>
<td>27.8 (10)</td>
</tr>
<tr>
<td>MI Spirit = 1</td>
<td>12.5 (34)</td>
<td>39.3 (107)</td>
</tr>
<tr>
<td>Empathy &gt; 1</td>
<td>29.4 (5)</td>
<td>53.9 (9)</td>
</tr>
<tr>
<td>Empathy = 1</td>
<td>11.0 (32)</td>
<td>37.1 (108)</td>
</tr>
<tr>
<td>Reflections</td>
<td>8.5 (10)</td>
<td>44.9 (53)</td>
</tr>
<tr>
<td>No reflections</td>
<td>14.2 (27)</td>
<td>33.7 (64)</td>
</tr>
</tbody>
</table>

\(^1\) percent who rated MD as “excellent”  
\(^2\) percent who gave MD score ≥ 75
How did discussions differ?

- Weight-related discussions longer for
  - Obese vs. overweight patients (80 seconds, p=.0002)
  - African American physicians (110 seconds, p=.03)
  - Family physicians vs. internists (72 seconds, p=.02)

- MI techniques better among
  - White physicians: More reflections (67% vs. 41%, p=.001)
  - Female physicians: More MI consistent (54% vs. 41%, p=.02)
  - Younger patients: More MI consistent (p=.008)

Limitations/Strengths

- Observational study
- Older, higher income sample of patients
- Untrained physicians
- Low frequency of MI behaviors
- Large, diverse sample
- Blinded to study hypothesis
Conclusions

- Discussing weight not enough to help
- MI techniques may influence weight loss and nutrition
- MI techniques related to higher satisfaction and perceived autonomy
- Interventions might target MI techniques
- Some physicians might have more room for improvement than others
Next steps

- **Teen CHAT**
  - RCT teaching pediatricians and family physicians how to incorporate MI into weight counseling with adolescents
  - Completed baseline phase (n=187)
  - Delivered web-based intervention
    - 23 of 23 physicians assigned to Tx have viewed website
  - Collecting post-intervention audio recordings
Could not have done this without

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Questions?