DEVELOPMENT OF AN INTERVENTION AND PROTOCOL TO IMPROVE WEIGHT MANAGEMENT IN PRIMARY CARE AT THE VETERAN'S AFFAIRS

Melanie Jay, MD, MS
Department of Veterans Affairs, New York Harbor
Assistant Professor, NYU School of Medicine
Disclosures

- I have no conflicts of interest
- I am currently funded by a career development award through HSR&D at Veterans Affairs
- All references are available upon request
Objectives

• To present CDA-related formative work leading to intervention development
• To describe the MOVE! Towards Your Goals Intervention(now called GEM) and report results of pilot studies
• To briefly describe our research protocol for an IIR grant application
• To discuss the challenges and opportunities of conducting research with a CDA
Poll Question

I am (choose 1):

Currently a career development (CDA) awardee
A Career development award mentor
A past career development awardee (but not a mentor)
Primarily a researcher who is not a CDA mentor or mentee
None of the above
Primary Care and Weight Management

• Primary Care is an important venue to promote weight management through lifestyle-based counseling

• Primary care providers frequently fail to counsel obese patients to lose weight

• A recent systematic review showed that technology-assisted interventions in primary care can promote weight loss
5 As Model for Obesity Counseling

Assess

- Risk
- Stage of Change
- Current Behaviors

Advise

- Weight loss
- Behavior change

Agree

- Collaboratively set goals

Assist

- Address barriers
- Motivational Interviewing
- Medications

Arrange

- Follow-up
- Referrals
The Impact of Primary Care Resident Physician Training on Patient Weight Loss at 12 Months

Melanie R. Jay¹, Colleen C. Gillespie¹, Sheira L. Schlair², Stella M. Savarimuthu¹, Scott E. Sherman¹-³, Sondra R. Zabar¹ and Adina L. Kael¹

Objective: It is unclear whether training physicians to counsel obese patients leads to weight loss. This study assessed whether a 5-h multimodal longitudinal obesity curriculum for residents on the basis of the 5As (assess, advise, agree, assist, and arrange) was associated with weight loss in their obese patients.

Design and Methods: Twenty-three primary care internal medicine residents were assigned by rotation schedule to intervention (curriculum) or control groups. We then conducted follow-up chart reviews to determine weight change at up to 12 months following the index visit. 158 obese patients (76 in the intervention group and 82 in the control group) completed exit interviews; 22 patients who presented for acute care at the index visit were excluded. Chart reviews were conducted on the 46 patients in the intervention group and 41 patients in
Treating Obesity at Veterans Affairs Hospital

- 36-37% of VA patients are obese
- Patients see their primary care doctor 3.6 times per year, but few receive adequate counseling
- BMI screening, referral to MOVE! or TeleMOVE!
- Only 8-10% of eligible patients go to one MOVE! visit
Specific Aims Of CDA

• Using qualitative methods, develop a brief, computer-assisted 5As intervention to treat obesity in primary care.

• Determine the feasibility and acceptability of this intervention for urban, obese, VA patients within PACT.

• Explore the impact of intervention on intermediate, behavioral, and weight loss outcomes at 3, 6 and 12 months post intervention.
Phases of Project

Formative

Development

Evaluation
Focus Groups

To inform intervention development, we explored unique VA patient:

- lifestyle behaviors
- weight management experiences with healthcare providers
- use of goal-setting
- use of health technology

- 6 focus groups of obese patients
- 2 female, 4 male
- 54 participants
<table>
<thead>
<tr>
<th></th>
<th>Male N=34</th>
<th>Female N=20</th>
<th>Total N=54</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Average Age (years)</strong></td>
<td>61</td>
<td>51</td>
<td>58</td>
</tr>
<tr>
<td><strong>Race</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>13 (38)</td>
<td>4 (20)</td>
<td>17 (32)</td>
</tr>
<tr>
<td>Black</td>
<td>15 (44)</td>
<td>10 (50)</td>
<td>25 (46)</td>
</tr>
<tr>
<td>Asian</td>
<td>0 (0)</td>
<td>0 (0)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>American Indian</td>
<td>0 (0)</td>
<td>0 (0)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>Other</td>
<td>6 (18)</td>
<td>6 (30)</td>
<td>12 (22)</td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>11 (55)</td>
<td>2 (6)</td>
<td>13 (24)</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than HS</td>
<td>2 (6)</td>
<td>0 (0)</td>
<td>2 (4)</td>
</tr>
<tr>
<td>HS/GED</td>
<td>9 (26)</td>
<td>3 (15)</td>
<td>12 (22)</td>
</tr>
<tr>
<td>College</td>
<td>16 (47)</td>
<td>11 (55)</td>
<td>27 (50)</td>
</tr>
<tr>
<td>Graduate</td>
<td>7 (21)</td>
<td>6 (30)</td>
<td>13 (24)</td>
</tr>
</tbody>
</table>
Theme 1 - Impact of Military Service on Healthy Behaviors

- The structured environment and strict standards of the military motivated them to maintain weight control while enlisted.
- Lack of autonomy was a barrier to learning how to manage their health when they left service.
- Physical activity considered the predominant method to lose weight.
- Strong military identity; sought support from other Veterans (not as important for female groups).
Theme 2-Promotion and Sustainability of Healthy Behaviors

• Perceived need for more personalized and tailored lifestyle counseling (especially in female focus groups)

• Goal Setting was well-accepted but need for accountability to increase motivation

• Technology was considered useful but expressed the need to have a knowledgeable person (i.e. health coach, PCP, dietician, etc.) provide guidance
Key Informant Interviews

We assessed 22 PACT teamlet and MOVE! staffs’:

- attitudes and perceptions regarding obesity care
- obesity-related counseling practices
- perceptions and experiences with the MOVE! program
- targets for interventions to improve implementation of obesity care in the PC setting.
Key Informant Interviews

- 22 PACT teamlet members
  - 11 PCPs (MD/NP)
  - 5 Registered Nurses
  - 5 Licensed Practical Nurses
  - 1 Program Assistant

- 3 MOVE! staff
  - 2 dietitians
  - 1 psychologist
Key Informant Interview Findings

- Perceptions about role responsibility and counseling competency varied among and within professions

- Performance measures and EMR reminders impacted practice but did not necessarily lead to higher quality counseling

- PACT and MOVE staff were trained in goal setting and had a positive view of this technique

- Few understood the MOVE! program
## Key Informant Interview Findings

<table>
<thead>
<tr>
<th>Themes</th>
<th>System Level Factors</th>
<th>Individual/Team Level Factors</th>
</tr>
</thead>
</table>
| **Role perceptions** | Training  
Time for counseling  
Staffing  
Licensing | Perceived competency  
Education  
Personal experience  
Team structure |
| **Anticipated outcomes of weight management counseling/programs** | Perceived effectiveness  
Impact of group vs. individual meetings  
Limited program hours  
Travel costs | Difficult to motivate patients  
Effect of patient psychosocial factors  
Usefulness of goal setting |
| **Communication and information dissemination** | EMR reminders  
Time allocation  
Counseling templates  
About MOVE! program  
Utility of making suggestions | Progress of patients (PACT ↔ MOVE!)  
Use of EMR notes  
Lack of understanding about MOVE! program |
## Intervention Development

<table>
<thead>
<tr>
<th>Component</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use 5As Framework</td>
<td>National counseling guidelines, builds upon prior work</td>
</tr>
<tr>
<td>Emphasize Goal setting</td>
<td>Aligns with “Agree” and is acceptable to patients and staff</td>
</tr>
<tr>
<td>Tailor online questionnaire; Add goal setting functions</td>
<td>To “Assess” behaviors and barriers and “Agree” on initial goals; helps with time management, technology is acceptable</td>
</tr>
<tr>
<td>Add Health Coach to team</td>
<td>Focus group participants liked the idea of being coached, PACT teamlets worried about time management</td>
</tr>
<tr>
<td>Telephone coaching calls</td>
<td>To add accountability and more frequent contact.</td>
</tr>
<tr>
<td>Link to MOVE!</td>
<td>Need to improve utilization of intensive programs</td>
</tr>
</tbody>
</table>
Existing tool: MOVE!23

- 23-item online questionnaire
- Delivered tailored advice
- Linked to MOVE! handouts
- Generated report for provider
- Used as an intake tool for some MOVE! programs
Developed new online tool: MOVE! Toward Your Goals (MTG tool)

- 5 additional questions to assess dietary behaviors
- Real-time, actionable advice
- Helps patient create weight loss, dietary, and physical activity goals
- Provides information about VA programs
- Generates a binder of tailored educational materials for patient
- Generates report for provider to paste into EMR
Welcome!

MOVE! Towards Your Goals (MTG) is an online weight management and goal-setting tool that should take 15-20 minutes to complete.

Swipe left or click the arrows below to continue.
Choose your nutrition goals

Here are possible nutrition goals ranked by level of importance to you. (High to low) Choose up to two you want to start working on in the next week.

☐ I will replace sugar-sweetened soda, tea, juice, juice-drinks, or other beverages with water.
☐ I will reduce the number of meals I eat from sit-down or takeout restaurants.
☐ I will eat more servings of vegetables a day.
☐ I will eat more servings of fruit each day.
☐ I will take smaller portions of food and limit second helpings.
☐ I will reduce the amount of alcohol that I drink and replace it with water.
☐ Is there anything else you would like to do to improve your diet?  

Submit
Role of Health Coach

- Help patient make lifestyle goals into SMART goals
- Addresses barriers, teaches self monitoring
- Links patient to intensive weight management programs (e.g. MOVE! program, weight watchers)
- Becomes an additional member of the PACT teamlet
- Empowers patient to discuss weight management with provider/teamlet
- Sees patient at baseline and follows up with 12 coaching calls over 1 year
Health Coach Toolkit

- Tailored Education Materials
- Motivational Interviewing
- Smart Phone Apps
- Community Resources
- SMART Goal Worksheet
- Self Monitoring
- Referral to MOVE
MTG Intervention

Integrated Healthcare System

PACT teamlet

With Health Coach

Patient completes online goal setting tool and receives tailored advice
Patient creates weight loss, dietary, and physical activity goals
Patient creates SMART goals
Health Coach pastes tool generated Provider Report into EHR for PACT teamlet

Primary Care Provider Visit

Provider receives EHR reminder to discuss goals
Provider does brief motivational interviewing (if needed)
Patient and Provider agree on goals

Community/Family

Patient achieves weight management and lifestyle goals
Patient Attends MOVE!
Patient receives 12 coaching call from Health Coach
Phase 1 Pilot Testing: Lab-based Usability Studies/Health Coaching

- “Think Aloud” protocol
- Health coaching
- Semi-structured exit interviews
- 10 completed
- Presented to providers and RN care managers
Initial Findings from Usability Study/Pilot Testing

- MTG tool facilitates goal-setting conversations
- Participants liked the personalized binder
- Participants appreciated receiving support while taking tool
- 10/10 patients increased or maintained level of motivation to lose weight
- 80% increased level of confidence to achieve goals
- Results led to further changes to MTG tool and health coaching manuals
Phase 2 Pilot Testing: Clinic-Based Testing

- 11 patients from 4 PACT teams
- All participants made SMART goals
- Upcoming 3 month outcome visits
- 7/11 received telephone coaching
- Of those who received coaching, completed 78% of visits
- All 10 staff (3 RN care managers, 3 LPNs, 4 PCPs) indicated that the intervention:
  - fulfills an important need
  - Improves quality of weight management counseling
  - Is not a burden to staff
  - Is feasible
  - Needs a new name
New Name for MTG Intervention

• Goals for Eating and Moving (GEM)
Test the impact of the GEM Intervention on weight change, clinical, and behavioral outcomes

- **H1a:** Veterans in the GEM Intervention arm will lose 2.2 kg, and 27% will achieve ≥5% weight loss after 12 months of treatment.

- **H1b:** The GEM Intervention will result in improvements in behavioral outcomes (e.g. increased number of steps, increased fruit/vegetable intake, increased attendance to MOVE!) and clinical outcomes (blood pressure, Low Density Lipoprotein (LDL), Hemoglobin A1C, and waist circumference).

- **H1c:** The GEM Intervention will increase attendance to MOVE! and/or other intensive programs.
Specific Aims 2 and 3

Identify predictors of weight loss in Veterans participating in the intervention arm related to: a) goal-setting processes and b) intervention components

- **H2a:** Veteran self-efficacy and goal attainment will be associated with weight loss.
- **H2b:** Participation in MOVE!, number of telephone coaching calls received, use of self-monitoring, and counseling by PACT teams will be associated with weight loss.

Determine the impact of the GEM Intervention on provider and RN obesity-related counseling attitudes and practices
Flow chart of RCT

- Randomization:
  - At RN care manager level (7 PACT teams 14 providers per arm)
- Two arms (~200 Veterans each):
  - Control Group – Enhanced Usual Care
  - Intervention Group – MTG Intervention
- In-person study visits:
  - Baseline, 3, 6, 12 months
Patient Recruitment

- Identify obese patients with upcoming appointments with PCPs
- Send recruitment letters 3 weeks prior to appointment
- Patients can call us if interested
- We will make follow up calls for further recruitment
Inclusion Criteria

- Veterans age 21-75
- Appointment with primary care provider
- Must have telephone
- BMI ≥25kg/m² with comorbidity or ≥ 30kg/m²

Exclusion Criteria

- PCP excludes patient
- Cognitive barriers to participation
- Non-corrected vision problems
Recruitment and Retention of Women

- Aim for 20% of sample to be comprised of women
- Will contact a random sample of male veterans and all eligible female veterans (5:1 ratio).
- Use gender-specific images on recruitment materials
- Most of our research assistants and health coaches are female
Could you be living a healthier life?
Created for Veterans like you
With the support of your primary care doctor

Be involved in a research study and participate in one of two different weight management strategies!

Participation requires:
- 4 in-person visits
- taking health behavior surveys
- height and weight

The 1st visit must occur before your primary care appointment (within 48 hours) and will be longer than the others.

Comensation for your participation in the research study:
Visit 1: $40
3 Months: $40
6 Months: $20
12 Months: $60

If you choose not to participate, it will not impact the care from your doctor and healthcare team at the New York Harbor VA Hospital.

If we do not hear from you, one of our staff will contact you.
Your participation is voluntary.
For more info call 312-686-7900 x5093

Could you be living a healthier life?
Created for Veterans like you
With the support of your primary care doctor

Participation requires:
- 4 in-person visits
- taking health behavior surveys
- height and weight

The 1st visit must occur before your primary care appointment (within 48 hours) and will be longer than the others.

Comensation for your participation in the research study:
Visit 1: $40
3 Months: $40
6 Months: $20
12 Months: $60

If you choose not to participate, it will not impact the care from your doctor and healthcare team at the New York Harbor VA Hospital.

If we do not hear from you, one of our staff will contact you.
Your participation is voluntary.
For more info call 312-686-7900 x5093
Determine whether intervention should be tailored for women

- As part of a RE-AIM analysis, we will explore outcome differences in women
- Will explore differences in acceptability via surveys
- Conduct focus groups at end of intervention
- This will help us to determine whether the intervention needs to be additionally tailored for women
Limitations

• Participants and providers not blinded to intervention assignment

• Not powered for physical activity and dietary outcomes

• Not powered to see outcome differences in subgroups (e.g. women)

• The GEM Intervention may not increase participation in MOVE!
CDA Opportunities and Challenges

- Amazing mentorship and investment in my career
- VA vs. University responsibilities
- Conducting research with limited project funding
- Developing Software
  - Use of college students, Google intern, and research team family
  - Use of non-VA servers and data use agreements
- Building a research team
  - 1 part time research coordinator and 7-9 unpaid interns
Acknowledgements

- Scott Sherman
- Adina Kalet
- Xavier Pi Sunyer
- Katrina Mateo
- Natalie Berner
- Natalie Ricci
- Pich Seekeaew
- William Vabrinskas
- Allison Squires
- Many others……
Feedback/Questions