A Social Ecological Analysis of Barriers to Weight-loss Success in the Veterans’ Health Administration MOVE! Program

Colmery – O’Neil VA Medical Center, Topeka, Kansas
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Jeffrey M. Warner, D.C.
MPH Capstone Report

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Presentation Outline

Intro
- National Veteran Administration (VA) stats
- Topeka VA stats
- MOVE! 101

Project
- Goals
- Social Ecological Interventions
- Daily Activities

Data/Results
- Change in referrals
- Patient visit average (PVA)
- Average weight loss
- Correlation between number of classes attended and weight loss

Discussion – Public Health Relevance

Questions
Military Veterans at a glance:

- 22.7 million vets
- 1.84 million female
- Population is declining and will do so until 2036
- Stats show that up to 74% of patients seeking care at VA facilities are overweight or obese!
- Physical Activity is similar to general population with few exceptions:
  - Post Traumatic Stress Disorder (PTSD)
  - Higher musculoskeletal injuries
Veteran Population Served by VA Nationally

- 8,570,000 vets served by VHA in fiscal 2011
- 91.9% male
- 79.9% white
- Median age = 60
- Fastest growing sector is 20-29 years old (OIF/OEF)
- 92% high school graduates, 26% bachelor degree
- 82% home ownership rate
2,999,950 (35%) of patients served in 2011 had BMI of 30 or greater!
Veteran Population Served by Topeka VA

- 37,020 vets served in 2011
- Average age is 60
- Predominately white (80%)
- 12,500 have obesity diagnosis (33.77%)
- Since 2006, 875 vets have been referred to MOVE! in Topeka (7%)
Topeka VA Resources

- VA staff of 1,744 and volunteer pool of 601
- 407,139 outpatient visits in 2011
- $262,000,000 Topeka VA budget in 2011
- Walk score of 57 according to www.walkscore.com
Veterans’ PA Level

- Littman (2009) Veterans vs. non-Vets
  - Inactivity 16.2% vs. 20.5%
  - Meeting PA recommendations 46% vs. 42%
  - Va users vs. non-VA Vets inactivity 20.8% vs 14.7%
- DeVries (2001) found veteran PA levels similar to general population
- Peterson (2004) used a six minute walking test to compare PA capacity in older Veterans to their non-Vet peers. They found no significant difference
MOVE!® Weight Management Program

is a national weight management program designed by the VHA National Center for Health Promotion and Disease Prevention (NCP), a part of the Office of Patient Care Services, to help veterans lose weight, keep it off and improve their health.
• MOVE! = Managing Overweight/Obesity in Veterans Everywhere
• MOVE! is Congressionally mandated and federally funded but implementation is at the discretion of local VA facilities.
MOVE! 101

• Implemented in 2006

• Free pedometers provided to vets in program

• 18.6% of participants lost more than 5% of body weight over two year period, compared to 12.5% of control group (Kahwati 2011).

• Successful implementation associated with an “innovation champion” and institutional readiness for change (Weiner 2011).
The VA National Center for Health Promotion and Disease Prevention developed the MOVE! Program based on the National Heart, Lung and Blood Institute Clinical Guidelines on the Identification, Evaluation and Treatment of Overweight and Obesity in Adults with guidance from the VA Weight Management Executive Council.
MOVE! combines nutrition, physical activity and behavioral health components

Group education format is most common

TeleMOVE! and web-based MOVE! are options for participation
This project utilized a Social Ecological Framework to:

1. Increase the referral rate to MOVE!
2. Increase patient compliance rates once enrolled
3. Remove possible barriers to participation
4. Increase weight loss success!
Policy

Community

Organization

Interpersonal

Intrapersonal

- Weekly MOVE! and WoW! classes
- Follow up phone calls
- Group format facilitates social connections
- Internal marketing to primary care dept.
- Implementation of WoW!
- Volunteers from Rotary, Knights of Columbus, VFW, DAV help with walking club and other MOVE! activities
- Allow all medical staff, not just physicians, to refer to MOVE!
- Increase participation of female vets to justify more funding
- Improve VA performance measures to justify increased Congressional funding for MOVE!
MPH Capstone Project Logic Model

Jeffrey M. Warner

**Inputs**
- VA Preceptor – David Scharpenburg, R.D.
- MOVE! instructors
- MOVE! participants
- VA medical staff
- MOVE! class material

**Activities**
- Assist with weekly MOVE! group classes
- Teach MOVE! classes when needed
- Weigh-in patients prior to each class
- Develop survey to assess VA physicians’ perceptions of obesity
- Evaluate referral process and simplify if possible
- Attend MOVE! administrative meetings and participate in national MOVE! teleconferences
- Establish a women-only MOVE! program with the VA’s Dept. of Women’s’ Health

**Outputs**
- Number of vets who attend first MOVE! class
- Number of vets who attend more than one class
- Number of participants who decrease abdominal circumference
- Number of VA physicians who refer to MOVE!

**Outcomes**
- Increase in referral rate to MOVE!
- Increase in participants’ perceived ability to lose weight
- Number of patients who lost weight during program
- Positive patient experience during MOVE! program
- Increase in vets perception of social and institutional support when losing weight

**Impact**
- To increase the reported 8% MOVE! usage rate among eligible Veterans at the Topeka VA.
- To lower the 35% obesity rate among the Veteran population
- To offer the MOVE! program to 100% of eligible patients
Daily Activities

Tuesdays:
- Program marketing
- Curriculum development
- National MOVE! conference calls
- Collaboration with VA Women’s Health Dept. on women-only MOVE! program (WOW!) development
Daily Activities

Thursdays:
- MOVE! class
- Data gathering
- Stakeholder meetings
- Participant outreach (calls, emails)
MOVE! Conference Room
This project began in June of 2012 and concluded in November of 2012.

- Two full eight week MOVE! cycles were included
- Evaluation of my impact will be based on comparison of these two cycles with the eight week cycle that ended in May 2012.
<table>
<thead>
<tr>
<th>Measure Mnemonic</th>
<th>Concept Measured</th>
<th>How Measured</th>
<th>Calculation</th>
<th>National Goals</th>
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<tbody>
<tr>
<td>MOV5</td>
<td>BMI screening and offering MOVE!</td>
<td>Chart review</td>
<td>(# offered MOVE!/# who would benefit) x 100</td>
<td>100%</td>
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<tr>
<td>MOV6</td>
<td>Basic Participation in MOVE!</td>
<td>Chart review</td>
<td>(# with one MOVE! visit in last year/# who would benefit) x 100</td>
<td>Running 9% nationally, local goals of 15-30% increase</td>
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<tr>
<td>MOV7</td>
<td>Intense and sustained participation in MOVE!</td>
<td>DSS Data</td>
<td>(# with intense AND sustained care/# of new patients)</td>
<td>Running 13% nationally, goal to increase by 15% locally</td>
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MOVE! Evaluation (MOV6)
## Baseline Data

<table>
<thead>
<tr>
<th>Baseline</th>
<th>MOVE! Session</th>
<th>Total Participants</th>
<th>New Participants</th>
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<tr>
<td>4/12/2012</td>
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</tr>
<tr>
<td>4/19/2012</td>
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<tr>
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<tr>
<td><strong>Totals</strong></td>
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# MOVE! Cycle 1 Data

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<th>MOVE! Session</th>
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<th>New Participants</th>
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<tr>
<td><strong>Cycle 1 Totals</strong></td>
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<td>Cycle 2 Dates</td>
<td>MOVE! Session</td>
<td>Total Participants</td>
<td>New Participants</td>
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<td>9/20/2012</td>
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<td>9/27/2012</td>
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<td>14</td>
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<tr>
<td><strong>Cycle 2 Totals</strong></td>
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<td><strong>87</strong></td>
<td><strong>18</strong></td>
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</table>
Comparison of Attendance

- Baseline
- Cycle 1
- Cycle 2

# of Participants vs. Session #
Criteria For Data Inclusion

1. Medical record must contain starting and ending weight
2. Veteran must have attended two or more MOVE! classes

30 out of 40 possible data points met these criteria
Correlation Between Weight loss and Classes Attended

Correlation between 3 or more classes attended and average weight loss = 0.9781

P-value = 0.0004 (p<0.05) Indicates the correlation is significant and highly unlikely to be due to chance
Results

- Average # of classes attended = 5.2
- Average weight loss during MOVE! = 5.31 lbs.
- Average % of body weight lost = 2.00%
- 25 out of 30 included participants lost some weight
- Largest 8 week loss = 29.6 lbs. (9.26%)
Women comprise less than 10% of VHA population

- VA performance measures (MOV5, MOV6, MOV7) analyze data disproportionately from males and females (About 35% of evaluation data from females)

- Are there barriers to female participation in MOVE!?
Barriers to Female Participation

- High rate of sexual trauma history
- Family obligations
- Younger than male vet population
WOW! (Women’s Only Wellness)

- Conducted at Women’s Health Clinic
- Taught by female instructors
- Stronger emphasis on emotional aspects of weight loss
- First 8 week session began on November 6th, 2012
Barriers were identified and removed
- Physician referral eliminated
- Creation of WOW! to increase female participation

Program outcomes measured locally and found to be consistent with national standards
A Social Ecological approach increased visibility of MOVE! to stakeholders and veterans.

Ensure that obese vets were linked to VA services to combat their condition.

MOVE! classes provide vets with the knowledge and self-efficacy to achieve their weight loss goals.
Policy Development

Shifting VA demographics require new approaches to implementing programs (MOVE! / WOW!)

Enforcement of VA directives requiring MOVE! referral for all vets who qualify

Facility “willingness to change” was key to policy success in this project
1. Limited time – only 2 complete MOVE! cycles
2. Small data sample
3. Lack of control over data entry into VA medical record system
4. Backlog of MOVE!23 questionnaires not entered since January 2012 – prevented analysis of perceived barriers to weight loss
Future Considerations

MOVE!23 Questionnaire – Great resource for public health practitioners

http://www.move.va.gov/move23.asp

Presence of a “Program Champion” appears to increase veterans’ perceived support from VA, which is consistent with the literature (Weiner 2011).
Future Considerations

Longer duration interventions appear to produce greater weight loss success (close to 1:1 ratio of pounds lost vs. classes attended)

Increasing organizational support (follow-up calls) appears to increase veteran participation
Future Considerations

If WOW! is able to attract a significant number of female participants, policies facilitating the creation of gender-specific VA programs need to be addressed.
References


Questions?