

Very-Early Responders, Program Participation, and Weight-Reduction Success with MOVE!®

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BACKGROUND

- The Obesity Society's 2013 guideline¹
 - Initial weight-reduction goal as 5%
 - High-intensity (≥14 sessions in 6 months) interventions as most effective behavioral treatment for obesity and comorbid conditions with a BMI ≥ 27
 - No specified time to make intervention adjustments other than at 6 months
- MOVE!®
 - The Veteran's Administration clinical facilities' behavioral weight-reduction program^{2,3}
 - Free of charge to veterans⁴
 - Outcomes varied by age, gender, race and participation in previous analyses⁵⁻⁹
 - 14 or more sessions with the MOVE!® behavioral weight-reduction program was a predictor of ≥ 5% weight reduction at 6 months.¹⁰
- Early response has several definitions and often is related to later success with weight reduction.¹¹⁻¹⁵
- It is not known if very-early response to MOVE!® predicts continued participation or successful weight reduction.
- The **purpose** of this study was to examine the effect of very-early weight-reduction success with the MOVE!® behavioral weight-reduction program, available at the Charlie Norwood Veterans Administration Medical Center, on a) participation in 14 or more sessions within 6 months and b) weight-reduction goal achievement at 6 months.

METHODS

- Using longitudinal clinical data from electronic health records of 216 MOVE!® program participants, this program's sessions and weight-reduction data were examined in this secondary data analysis.
- Key measures
 - Participation in group MOVE!® over 6 months
 - Number of sessions
 - 14 or more sessions
 - Very-early response
 - ≥ 0.5% weight reduction (baseline to week 2)
 - Weight reduction
 - Weights at baseline
 - Weight 6 month post-enrolling
 - ≥ 5% weight reduction (baseline to 6 months)
- Logistic regression

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5. Disclaimer: Contents of this poster do not represent the views of the Department of Veterans Affairs, United States Government, or Georgia Regents University.

RESULTS

Table 1. Baseline Characteristics (n = 216)

Demographics	Mean ± SD	Frequency (%)
Age (Range 26 – 81 years)	57.5 ± 10.9	
Male		174 (81)
African American		125 (58)
Obesity		
Body Mass Index (Range 27 – 62.7)	35.3 ± 6.2	
Comorbidity		
Diabetes		71 (33)
Hypertension		152 (70)
Hyperlipidemia/Dyslipidemia		128 (59)

Table 2. MOVE!® Participation during first 6 months (n = 216)

Sessions	Range	Mean ± SD	Frequency (%)
Number	0-24	4 ± 4.9	
High Intensity (≥14)			11 (5)

Table 3. Weight Reduction (n = 216)

Weight Reduction	Frequency (%)
Very-Early Responder (≥ ½% weight reduction at 2 weeks)	35 (16)
Goal Achieved (≥ 5% weight reduction at 6 months)	34 (16)

Table 4. Logistic Regression Model for ≥ 5% Weight Reduction at 6 months

Variable	b	OR	p	95% CI
Age	.01	1.01	.74	0.95, 1.08
Female	-1.04	.35	.37	0.04, 3.50
African American	-.25	.78	.67	0.24, 2.48
Very-Early Responder	1.72	5.59	<.01*	1.76, 17.80

In separate logistic regression models for ≥ 5% weight reduction at 6 months, very-early responder (OR = 5.46, CI 1.69, 17.71, p < .01) was the only significant predictor while controlling for age, gender, race, and total sessions; and very-early responder (OR = 8.33, CI 2.13, 32.56, p < .01) and high-intensity participation (OR = 10.93, CI 1.63, 73.55, p = .01) were significant while controlling for age, gender, and race; and very-early responder or high-intensity participation (OR = 3.71, CI 1.18, 11.70, p < .03) was significant while controlling for age, gender, and race.

Table 5. Logistic Regression Model for Participation in ≥ 14 Sessions in 6 months

Variable	b	OR	p	95% CI
Very-Early Responder	-.42	.66	.57	0.15, 2.83

* p < .01

DISCUSSION

- Very-early response predicted successful weight reduction at 6 months while controlling for other potential predictors.
- These findings augment earlier reports that more sessions were associated with goal achievement.
- MOVE!® program design limitations
 - Not conceived to have 14 sessions
 - Not devised for 6 month data
- Clinical Implications: educate providers and potential participants about the benefit of very-early response; seek avenues to support very-early response
- Further research needed to explain weight-reduction success with very-early response to MOVE!® outside of participation as well as examine the addition of early adjunct interventions and potential genetic differences in responses.

CONCLUSIONS

- Participants who responded very early to the MOVE!® program with a weight reduction of at least ½% of baseline body weight at two weeks were five times more likely to achieve the weight reduction goal of at least 5% at six months than those participants who were not very-early responders.
- However, the very-early response was not a predictor of ongoing participation reaching 14 sessions in 6 months.

REFERENCES

1. Jensen MD, Ryan DH, Donato KA, et al. Guidelines (2013) for the management of overweight and obesity in adults. *Obesity*. 2014;22(S2):S1-S410.
2. Kinsinger LS, Jones KR, Kahwati L, et al. Design and dissemination of the MOVE! weight-management program for veterans. *Prev Chronic Dis*. 2009;6(3):A98.
3. Veterans Health Administration. *Managing Overweight and/or Obesity for Veterans Everywhere (MOVE!) program* (VHA Handbook 1101.1). 2006. Washington, DC: Department of Veterans Affairs http://www.move.va.gov/download/Resources/1101.1HK3_27_06.pdf
4. Department of Veterans A. Elimination of co-payment for weight management counseling. Direct final rule. *Fed Regist*. 2008;73(74):20530-20532.
5. Dahn JR, Fitzpatrick SL, Llabre MM, et al. Weight management for veterans: Examining change in weight before and after MOVE! *Obesity*. 2011;19(5):977-981.
6. Jay M. Outcomes research in review. Impact of VA weight management program for veterans. *J Clin Outcomes Manag*. 2011;18(7):294-296.
7. Romanova M, Liang LJ, Deng ML, Li Z, Heber D. Effectiveness of the MOVE! Multidisciplinary weight loss program for veterans in Los Angeles. *Prev Chronic Dis*. 2013;10:E112.
8. Littman AJ, Boyko EJ, McDonnell MB, Fihn SD. Evaluation of a weight management program for veterans. *Prev Chronic Dis*. 2012;9:E99.
9. Garvin JT, Marion LN, Narsavage GL, Finnegan L. Characteristics influencing weight reduction among veterans in the MOVE!® program. *Western J Nurs Res*. 2015;37(1):50-65.
10. Garvin JT. Weight reduction goal achievement with high-intensity MOVE!® treatment. *Public Health Nurs*. 2015;32(3):232-236.
11. Astrup A, Rossner S. Lessons from obesity management programmes: greater initial weight loss improves long-term maintenance. *Obes Rev*. 2000;1(1):17-19.
12. Choo J, Kang H. Predictors of initial weight loss among women with abdominal obesity: A path model using self-efficacy and health-promoting behavior. *J Adv Nurs*. 2015;71(5):1087-1097.
13. Ortner Hadžiabdić M, Mucalo I, Hrabac P, Matić T, Rahelić D, Božikov V. Factors predictive of drop-out and weight loss success in weight management of obese patients. *J Hum Nutr Diet*. 2015;28:24-32.
14. Smith SR, O'Neil PM, Astrup A, et al. Early weight loss while on lorcaserin, diet and exercise as a predictor of week 52 weight-loss outcomes. *Obesity*. 2014;22(10):2137-2146.
15. Unick JL, Hogan PE, Neiberg RH, et al. Evaluation of early weight loss thresholds for identifying nonresponders to an intensive lifestyle intervention. *Obesity*. 2014;22(7):1608-616.

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