

A Standardized Plan of Care for Obesity Management in the Primary Care Setting

Amirose Cardines, BSN, RN, CCRN-K DNP Chair: Ann Bagchi, PhD, DNP, APN DNP Member: Irina Benenson, DNP, FNP-C, CEN

INTRODUCTION



- Obesity is a chronic disease that causes or worsens cardiovascular conditions, diabetes, and cancer, leading to preventable, premature death
- Obesity continues to trend upwards in the U.S.
- There is a lack of patient follow through and adherence with counseling on diet and exercise alone
- The 5As (Assess, Advise, Agree, Assist, and Arrange) model provides a structured plan of care that
 - o Evaluates patient readiness to lose weight
 - Considers comorbidities that may interfere with weight loss
 - Includes a multidisciplinary team approach that supports patients to achieve their goals

BACKGROUND & SIGNIFICANCE

- Obesity has been linked to multiple chronic diseases
- It is an epidemic of global proportions that causes death to millions of adults, adolescents, and children
- It has been attributed to a reduced rate in mortality improvement and decreased life expectancy
- It negatively impacts national healthcare expenditures and indirect and social costs
- The 5As offer a standardized, team-based approach to manage obesity in the primary care setting

METHODOLOGY



STUDY DESIGN: Quasi-experimental study design where in a chart review before and after a 30-minute in-service about the 5As model for obesity management

30 EMRs pre/post

SETTING: A small primary care practice in suburban Central New Jersey

Patients are primarily African-American and Hispanic

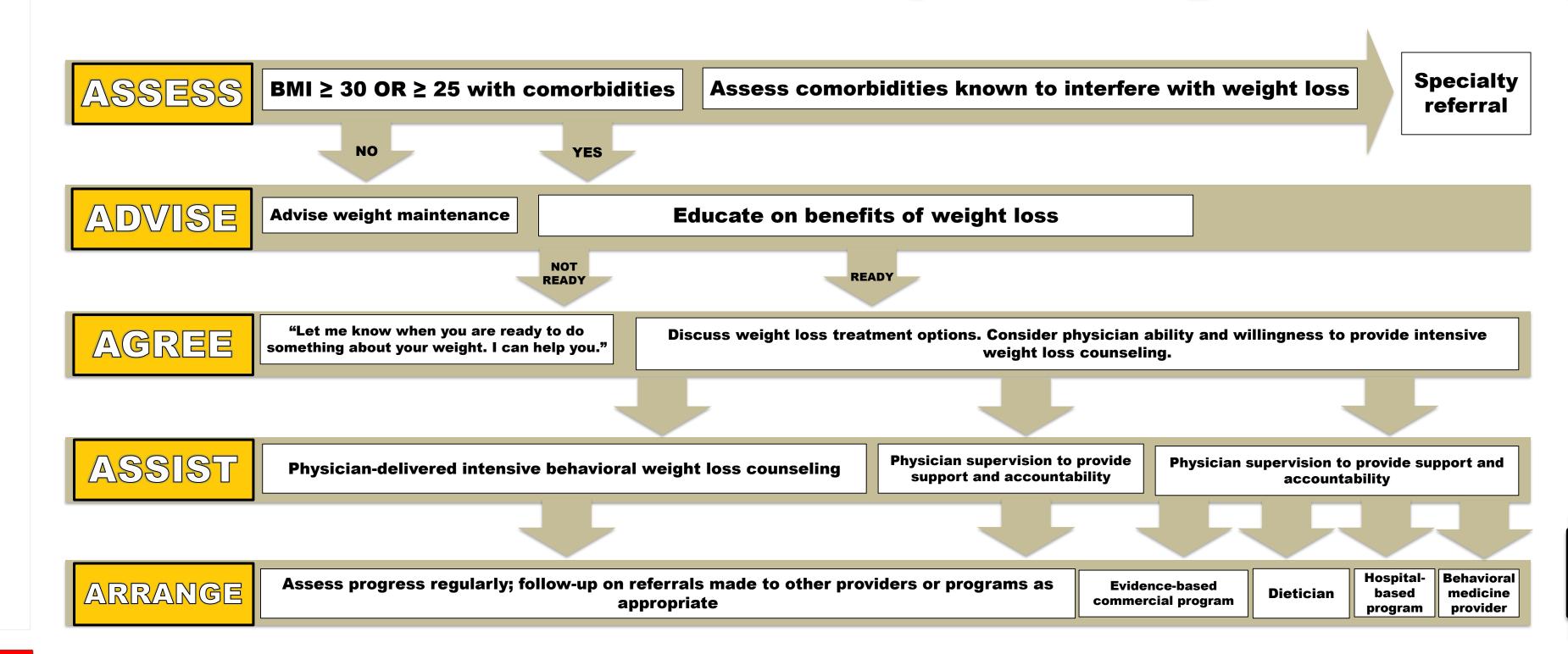
STUDY POPULATION:

- Age 18-65 years old
- BMI $\geq 25 \text{kg/m}^2$

MEASURES & ANALYSIS:

- Descriptive Statistics
 - Patient demographics
 - Elevated BMI scores pre/post intervention
- Non-parametric Statistics (Wilcoxon Rank Sum test)
 - O Difference in the mean number of steps in the 5As model that were documented pre/post-intervention
- Bivariate Statistics
 - O Relationship between the documentation of overweight or obesity diagnosis and intervention on weight management

5As Model of Obesity Management



RESULTS

DESCRIPTIVE STATISTICS

Characteristic	Pre-intervention	Post-intervention
Gender		
Female	18 (60%)	23 (77%)
Male	12 (40%)	7 (23%)
Race		
Black or African American	16 (53%)	18 (60%)
White or Caucasian	3 (10%)	0 (0%)
Hispanic	6 (20%)	4 (13%)
Asian	2 (6%)	4 (13%)
Other	3 (10%)	4 (13%)
BMI Classification		
Overweight	11 (37%)	11 (37%)
	19 (53%)	19 (53%)
Overweight/Obesity Diagnosis		
Documented	16 (53%)	19 (63%)
Undocumented	14 (47%)	11 (37%)

NON-PARAMETRIC STATISTICS

- A Wilcoxon Signed-Rank test was conducted to examine the difference in the number of steps in the 5A's model that were documented pre-/post-intervention
 - Pre-intervention: mean 5As steps documented = 1.4
 - \circ Post-intervention: mean score = 2.3.
- Conclusion: mean post-intervention scores were statistically significantly higher than pre-intervention scores Z = 146, p = .034

BIVARIATE STATISTICS

- Bivariate statistical analysis was used to determine the relationship between the documentation of overweight/obesity diagnosis and weight management intervention
- Post-intervention data suggests that there was a positive correlation between the two variables, r = 0.488, n = 30, p = 0.006
- Conclusion: an increase in documentation of obesity/overweight diagnosis is correlated with increased weight management intervention

DISCUSSION



- Provider-focused implementation of the 5As model is effective obesity management in the primary care setting
- There was an increase in BMI screening, overweight/obesity diagnosis, weight counseling and specialist referrals
- This study is consistent with results in previously reported studies
- Documentation of overweight or obesity diagnosis according to patients' BMI scores prompts healthcare providers to discuss weight management with their patients leading to timely interventions and referrals

IMPLICATIONS

IMPLICATIONS FOR PRACTICE

- Healthcare providers should utilize the 5As model to strategically treat overweight and obese patients in the primary care setting
- All patients should be weighed each visit to monitor their BMI score
- An overweight or obesity diagnosis should be documented accordingly

IMPLICATIONS FOR POLICY

 Legislative action should require healthcare providers to deliver appropriate and timely interventions to overweight and obese patients as soon as they are identified through their BMI score

IMPLICATIONS FOR QUALITY/SAFETY

- Primary care practices should adopt the 5As model into their patient triage procedure prior to being seen by a licensed provider
- The triage staff member can initiate assessment of BMI and comorbidities that may interfere with weight loss by obtaining height and weight and reviewing past medical history
- If a patient has been identified as overweight or obese, he/she will be flagged to alert the provider to perform the necessary interventions according to the 5As model

IMPLICATIONS FOR EDUCATION

- Studies on the efficacy of the 5As model for obesity management in primary care are still lacking
- Its compatibility with the primary care workflow, effect on weight or BMI scores over time, effect on patients with multiple comorbidities, and influence on healthcare costs need to be evaluated through further research

REFERENCE

Centers for Disease Control & Prevention. (2018a). Adult obesity facts. Retrieved from https://www.wcd.gov/ibaltabetes/prevention/index.html
Centers for Disease Control & Prevention. (2015). The health effects of overweight and obesity. Retrieved from https://www.dc.gov/healthyweighte/ffects/index.html
Centers for Disease Control & Prevention. (2015). The health effects of overweight and obesity. Retrieved from https://www.joutubec.com/watch?w-CCORDHshpE&t=14s
Chen, T., Hamletts-Berry, K., Watanabe, J., Bounthavong, M., Zillich, A., Christofferson, D., ... Hudmon, K. (2015). Evaluation of multidisciplinary tobacco essation training program in a large health care system. American Journal of Health Education, 46(3), 165–173. doi:10.1080/19325037.2015.1023475
Fitzpatrick, S., & Skevens, N. (2017). Adult obesity management in primary care, 2008–2013. Preventive Medicine, 99, 128–133. doi:10.1016/j.jman.2017.02.020
Fitzpatrick, S., Wisschenka, D., Appelhans, B., Přert, L., Wang, M., Wilson, D., & Pagoto, S. (2016). An evidence-based guide for obesity treatment in primary care. The American Journal of Medicine, 129(1), 115. doi:10.1016/j.amjmed.2015.07.015
Fitzpatrick, S., Wisschenka, D., Appelhans, B., Přert, L., Wang, M., Wilson, D., & Pagoto, S. (2016). An evidence-based guide for obesity treatment in primary care. The American Journal of Medicine, 129(1), 115. doi:10.1016/j.amjmed.2015.07.015
Fitzpatrick, S., Wisschenka, D., Appelhans, B., Přert, L., Wang, M., Wilson, D., & Pagoto, S. (2016). An evidence-based guide for obesity treatment in primary care. The American Journal of Medicine, 129(1), 115. doi:10.1016/j.amjmed.2015.07.015
Fitzpatrick, S., Wisschenka, D., Appelhans, B., Přetr, L., Wang, M., Wilson, D., & Pagoto, S., Valley, M., Schollan, B., Care, Ca

Rueda-Clausen, C., Benterud, E., Bond, R., Vallis, M., & Sharma, A. (2014). Effect of implementing the 5As of obesity management framework on provider—patient interactions in primary care. Clinical Obesity, 4(1), 39–44. doi:10.1111/cob.12038

Satterfield, J., Gregorich, S., Kalkhoran, S., Lum, P., Bloome, J., Alvarado, N., ... Vijayaraghavan, M. (2018). Computer-facilitated 5A's for smoking cessation: A randomized trial of technology to promote provider adherence. American Journal of Preventive Medicine, 55(1), 35–43. doi:10.1016/j.amepre.2018.

Servile, G., & Grassi, G. (2017). Obesity and hypertension. Pharmacological Research, 122, 1–7. doi:10.1016/j.phrs.2017.05.013

Sherson, E., Yakes Jimenez, E., & Katalanos, N. (2014). A review of the use of the 5 A's model for weight loss counselling: Differences between physician practice and patient demand. Family Practice, 31(4), 389–398. doi:10.1093/fampra/cmu020

The Johns Hopkins Hopkins Hopkins Hopkins University. (n.d.). Johns Hopkins Nursing Evidence-Based Practice Research Evidence Appraisal Tool. Retrieved from https://www.mghpcs.org/eed_portal/Documents/PI_EBP/Jon_Hopkins_Tools/Research_Evidence_Appraisal_Tool_fillable.pdf

U.S. Preventive Services Task Force. (2018). Behavioral weight loss interventions to prevent obesity-related morbidity and mortality in adults. Journal of the American Medical Association, 320 (11). doi:10.1001/jama.2018.13022

van Dillen, S., Noordman, J., van Dulmen, S., & Hiddink, G. (2015). Quality of weight-loss counseling by Dutch practice nurses in primary care: An observational study. European Journal of Clinical Nutrition, 69(1), 73–78. doi:10.1038/ejcn.2014.129

Welzel, F., Stein, J., Pabst, A., Luppa, M., Kersting, A., Bluher, M., ... Riedel-Heller, S. (2018). Five A's counseling in weight management of obese patients in primary care: A cluster-randomized controlled trial (INTERACT). BMC Family Practice, 19(1), 1–9. doi:10.1186/s12875-018-0785-7

in Dillen, S., Noordman, J., van Dulmen, S., & Hiddink, G. (2015). Quality of weight-loss counseling by Dutch practice nurses in primary care: An observational study. European Journal of Clinical Nutrition, 69(1), 73–78. doi:10.1038/ejcn.2014.129 elzel, F., Stein, J., Pabst, A., Luppa, M., Kersting, A., Bluher, M., ... Riedel-Heller, S. (2018). Five A's counseling in weight management of obese patients in primary care: A cluster-randomized controlled trial (INTERACT). BMC Family Practice, 19(1), 1–9. doi:10.1186/s12875-018-0785-7 orld Health Organization. (2019). Obesity. Retrieved from https://www.who.int/topics/obesity/en/unovski, S. (2018). Weight management in adults with obesity: What is a primary care clinician to do? JAMA, 320(11), 1111–1113. doi:10.1001/jama.2018.11031