



A Quality Improvement Study to Improve Weight Management in Adults and Children in a Primary Care Setting

Mary O'Connor MD, Jeremy Connors MD, Justin Hofmann MD, Yanet Ravelo MD, and Kristin Wong MD
 Departments of Internal Medicine and Pediatrics, Rutgers New Jersey Medical School

Background

The USPSTF recommends screening all adults for obesity and referring patients with a BMI higher than 30 kg/m² to “intensive, multicomponent behavioral interventions,” with a similar recommendation for children older than 6 years. While different societies have recommended various approaches to weight management in obese patients, an integrated approach including frequent visits, nutritional counseling, and medication and surgical therapies is essential to success.

Aim

Evaluate the practice of a resident run, internal medicine and pediatrics clinic pertaining to the management of patients with obesity and its associated comorbid conditions. Trends or gaps in treatment will be investigated. These data will be utilized to implement alterations to current practice in the coming year to better serve said patients.

USPSTF Guidelines

Population	Recommendation	Grade
Adults	The USPSTF recommends that clinicians offer or refer adults with a body mass index (BMI) of 30 or higher (calculated as weight in kilograms divided by height in meters squared) to intensive multicomponent behavioral interventions	B
Children and adolescents 6 years and older	The USPSTF recommends that clinicians screen for obesity in children and adolescents 6 years and older and offer or refer them to comprehensive, intensive, behavioral interventions to promote improvements in weight status	B

References

Final Update Summary: Obesity in Children and Adolescents: Screening. U.S. Preventive Services Task Force. June 2017.
 Final Update Summary: Weight Loss to Prevent Obesity-Related Morbidity and Mortality in Adults: Behavioral Interventions. U.S. Preventive Services Task Force. September 2018.
 Ryan, DH., Kahan, S. Guideline Recommendation for Obesity Management. Medical Clinic of North America. 2018;102:49-63.
 Styne, DM., et al. Pediatric Obesity-Assessment, Treatment, and Prevention: An Endocrine Society Clinical Practice Guideline. The Journal of clinical Endocrinology and Metabolism. 2017;102(3):709-757.

Methods

Internal Medicine-Pediatric residents conducted chart review of all patients seen in the Internal Medicine-Pediatrics clinic between Jan 1 2018 and Dec 31 2018 with a BMI greater than 30 or the 95th %tile for age less than 18. Data collected included age, gender, race/ethnicity, height and weight at first and last visit in 2018, obesity related comorbidities, and resident interventions.

203 MedPeds clinic patient charts evaluated

1. Seen by a resident Jan 1, 2018 → Dec 31, 2018
2. Documented BMI >30 or >95th %ile (in <18 years)
3. Encounter appropriate to address healthcare maintenance - e.g. not a specific follow up visit, sick visit, patient in distress

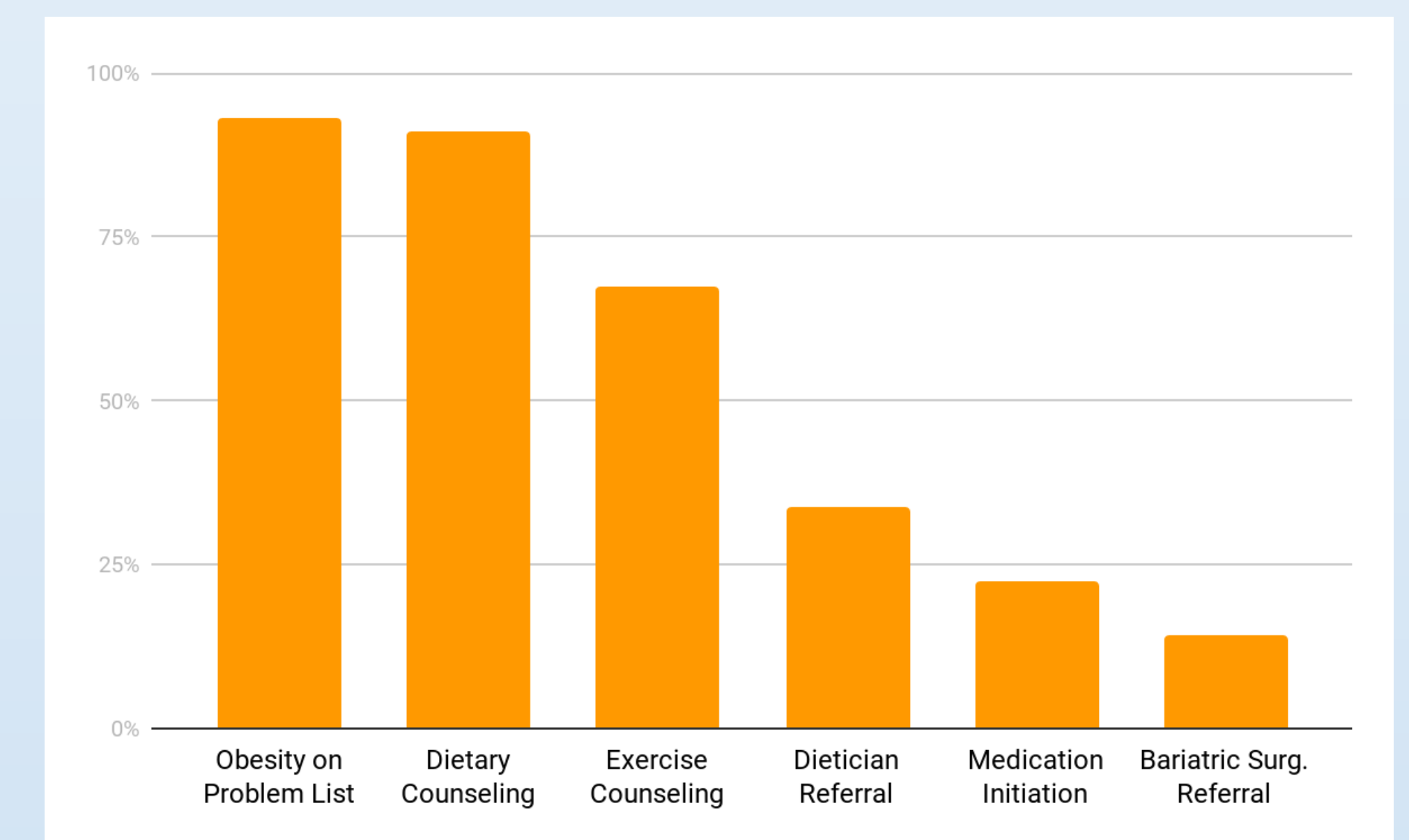
89 included in analysis — 117 excluded
 41.5

Male	20 (22.5%)	Body Mass Index (kg/m ²)	
Female	69 (77.5%)	Mean	41.5
Asian	1 (1.1%)	Median	38.6
Black/African American	68 (76.4%)	Range	30.0-73.0
Hispanic/Latinx	7 (7.9%)	Age (years)	
Non-Hispanic White	3 (3.4%)	Mean	52.9
CAD	19 (21.3%)	Median	55
Depression	9 (10.1%)	Range	15-88
Diabetes	50 (56.2%)	Obesity on Problem List	83 (93.3%)
Gout	2 (2.2%)	Dietary Counseling	81 (91.0%)
Hepatic Steatosis	5 (5.6%)	Exercise Counseling	60 (67.4%)
Hyperlipidemia	42 (47.2%)	Dietician Referral	30 (33.7%)
HTN	64 (71.9%)	Medication Initiation	20 (22.4%)
OA	16 (18.0%)	Metformin	17 (19.1%)
OSA	19 (21.3%)	Liraglutide	4 (4.5%)
Stroke/CVA	3 (3.4%)	Bupropion	2 (2.2%)
Other*	8 (9.0%)	Bariatric Surg. Referral	13 (14.6%)

*Back pain, CKD/ESRD, DVT, DiGeorge, GERD, Pregnancy, PCOS

Results

During the study period, 203 patient charts with an average BMI of 41.5 (range 30-73) were reviewed, 89 (43.2%) of which had documented counseling and/or management of obesity during an appropriate visit. Twenty of the patients were male (22.5%), with an average age of 53.0 and 76.4% were black/African American. Eighty-three patients (93.3%) had obesity on their problem list, 81 (91.0%) and 60 (67.4%) had documented dietary or exercise counseling respectively. Twenty (22.5%) were started on a medication, five primarily for weight loss (5.6%) and 15 in conjunction with other comorbid diseases (16.9%). Thirty-three (37.1%) were referred to a dietician/nutritionist, and 13 (14.6%) were referred to a bariatric surgeon.



Conclusions

Medicine-Pediatrics residents regularly diagnose and manage obesity with counseling. More data are needed to assess quality of this counseling, referral outcomes, barriers to care, and rates of follow up. Improvement can be made by increasing frequency of visits and documenting any declined or contraindicated interventions offered.