Introduction

Complications of obesity, such as dyslipidemia, abnormal glucose homeostasis, and hypertension, develop in early childhood and make early pediatric obesity management essential. [1] Identification is the first critical step in weight management. Patients who are diagnosed as obese at well child visits receive higher rates of counseling in exercise and nutrition and are more likely to be referred for further specialized management of their weight or comorbidities than those who are obese but not identified in the medical record. [2,3] The 2017 U.S. Preventive Services Task Force Evidence Report reinforces the importance of screening for obesity in children six years and older in conjunction with referral for intensive management [4]; however, most overweight children and a large portion of obese children are not identified or treated by their primary care providers, [2,3] even with the use of automatic BMI calculations in the electronic medical records. [5]

Study Objective

To identify and characterize the rates of documentation and guideline-based management of overweight and obese children within an academic pediatric clinic at Children's National Health System.

Methods

- A retrospective electronic medical record review of 7,422 well child visits from January 1, 2016 to December 31, 2016, for children 2 to 12 years of age was performed.
- This academic clinic cares for a primarily urban, minority (80% African American), and Medicaid (85%) population.
- During this 1-year study, there were 79 pediatric residents, 19 attending pediatricians, and 5 nurse practitioners who treated patients.
- Consistent with current expert committee recommendations, children were defined as overweight, obese, and severely obese based on age- and sex-specific BMI percentiles. [6]
- Diagnosis and treatment were analyzed by patient's weight diagnosis, sex, age, and provider training level.

References

1. Skinner AC *et al*. *Pediatrics*. 2009;124(5):e905-e912.
2. Walsh CO, *et al*., *Clin Pediatr*. 2013;52(8):777-785.
3. Cook S, *et al*., *Pediatrics*. 2005;116(1):112-116.
4. US Preventive Services Task Force, *JAMA*. 2017;317(23):2417-2426.
5. Shaikh U, *et al*., *Informatics Prim Care*. 2011;18(4):235-244.
6. Barlow SE. *Pediatrics*. 2007;120:S164-S192.

Results

Figure 1. *Provider behavior according to children's age*

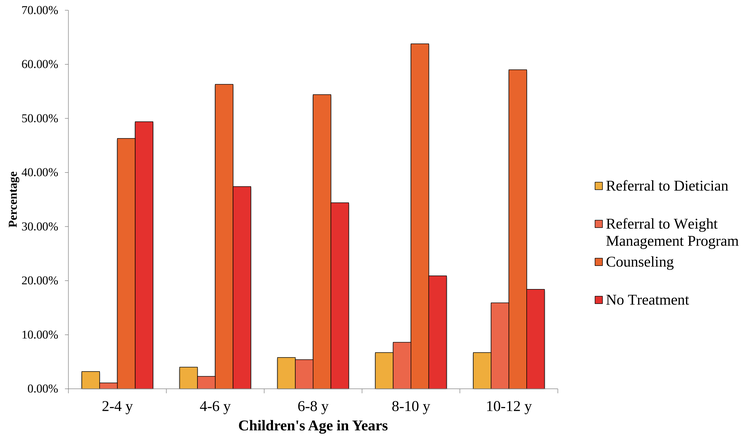


Figure 2. *Provider behavior according to provider training levels*

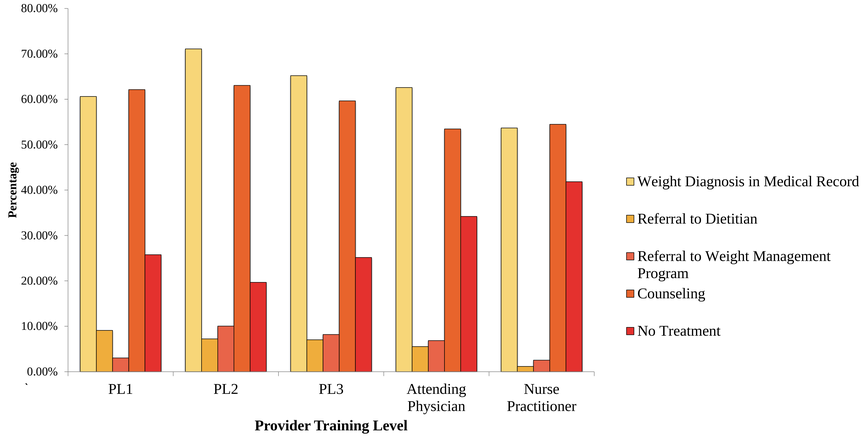


Figure 3. *Children correctly identified according to age and BMI classification*

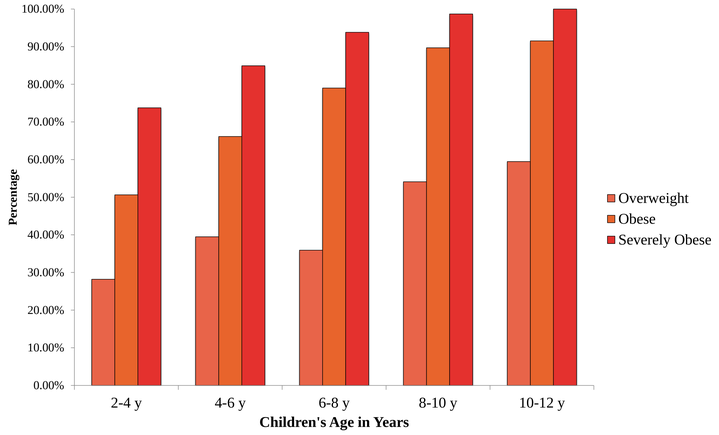
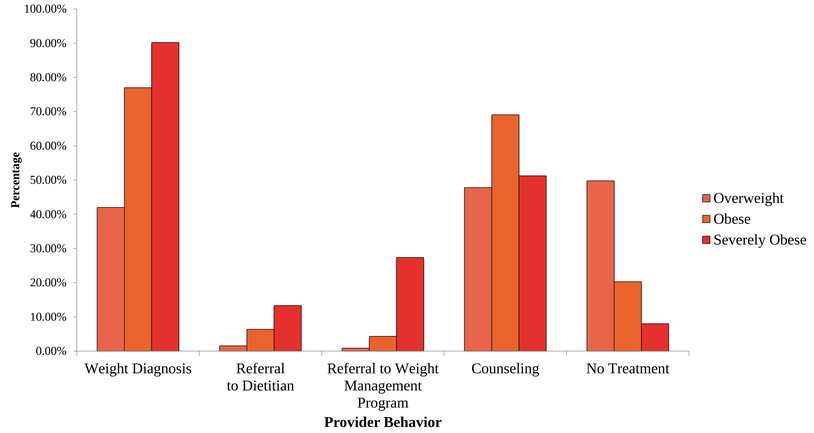


Figure 4. *Provider behavior according to BMI classification*



Conclusion

- Of the 7,422 pediatric patients who presented for well child visits, 15.6% (*n* = 1160) were overweight, 11.1% (*n* = 823) were obese, and 5.4% (*n* = 398) were severely obese.
- The percentages of correctly identified severely obese (90.2%), obese (77.0%), and overweight (42.0%) children were much higher than in previous retrospective chart reviews.
- Although this chart review indicates great strides in rates of diagnosis of overweight and obese children, further improvements need to occur in younger and less heavy children.
- Additionally, less than 30% of children were referred for more intensive weight management to a dietician or pediatric obesity weight management program and less than 60% received counseling.
- Strategic modifications to electronic medical records that automatically offer BMI associated weight diagnoses with a link to treatment pathways and resources are needed to facilitate improved compliance with current pediatric obesity guidelines in the primary care setting.

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