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**Current State of Pediatric Obesity: Management Trends in an Outpatient Pediatric Clinic**

Susan Edlibi  
Ryan Rogers  
Dina Abdo  
Charity Owusu-Asare  
Reem Wassef

*See next page for additional authors*

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Authors
Susan Edlibi, Ryan Rogers, Dina Abdo, Charity Owusu-Asare, Reem Wassef, Mary Coffey, Lihua Qu, Aimee Pollak, Stacey Shubeck, and Kerry Mychaliska
Background: The prevalence of pediatric obesity has increased over the last 30 years resulting in an earlier onset of obesity-related comorbidities. The greatest acceleration of Body Mass Index (BMI) in children has been reported to occur between the ages of 2 and 6 and is associated with an increased risk of sustained obesity in adulthood.

Objectives: The purpose of this study is to assess the characteristics of overweight (BMI at or above 85th percentile) pediatric patients and current management trends in a single academic outpatient clinic setting.

Design/Methods: This IRB approved retrospective study conducted a chart review of pediatric patients that presented to an outpatient clinic in an academic setting between October 1st, 2016 and December 31st, 2019. Inclusion criteria were patients aged 2 through 17, who presented for their health maintenance visit, with a documented BMI at or above the 85th percentile. Exclusion criteria were patients with a BMI less than the 85th percentile, age less than 2 or greater than 17, or incomplete documentation. The retrospective chart reviewed identified patient demographics and
Results: A total of 1,086 patients met inclusion criteria; 50.0% were female, and 25.8% percent of patients were aged 3 and under with a median age of 7 years. Obesity was documented in 45.8% of patients. Amongst patients meeting inclusion criteria, 22.3% had a BMI at or above the 99th percentile. Twenty-three percent (197/845) of patients with a documented blood pressure had a systolic or diastolic value at or above the 90th percentile. Hemoglobin A1C was ordered least frequently at 12.0% of visits, and 29% (23/78) resulted abnormal. Triglycerides were elevated in 43.6% (119/271) of patients tested and represented the most frequently abnormal reported lab. Abdominal ultrasound was obtained in 1.9% of patients and identified steatosis in 14% (3/21) of those patients. A larger percentage of BMI decrease was observed in patients who followed-up at 30-90 days when compared to those with follow-up at 181-365 days [% with decrease: 54.2% for 30–90, 41.4% for 181–365; difference: 12.8%; 95% CI: (-2.4%, 27.3%)].

Conclusion: This study demonstrates a high prevalence of overweight and obese children with laboratory and imaging abnormalities. The findings also demonstrate a large variation in current management. Perhaps most useful, the findings indicate the possibility of a greater decrease in BMI with earlier follow-up.