
Underdiagnosis of Obesity in Adults in US Outpatient Settings

Obesity affects nearly 32%—more than 60 million—American adults.1 The obesity epidemic imposes an enormous cost on the nation’s health2 and economy.3 Evidence-based clinical guidelines recommend that treatment for obesity incorporates a 2-step process: assessment and management.4 Routine screening and accurate diagnosis are among the first steps leading to proper treatment. However, research on obesity screening and diagnosis in US outpatient settings is limited.

Methods. We examined the rates of obesity screening and diagnosis in a nationally representative sample of visits by patients 18 years and older to private physician offices and hospital outpatient departments across the United States. Data were obtained from the 2005 National Ambulatory Medical Care Surveys conducted by the National Center for Health Statistics (NCHS) (http://www.cdc.gov/nchs/about/major/ahcd/ahcd1.htm [accessed July 23, 2008]). Patient, physician, and clinical information is collected at each randomly selected visit and is recorded on NCHS standard patient record forms. Measurements of height and weight were captured for the first time in 2005. Body mass index (BMI) (calculated as weight in kilograms divided by height in meters squared) and obesity were defined according to accepted standards.4 Physician diagnoses were documented using open-ended responses for (up to 3) visit diagnoses, which were later coded by NCHS staff according to the International Classification of Diseases, Ninth Revision, Clinical Modification and check boxes for a prespecified list of current medical problems, one of which was obesity, regardless of visit diagnoses. The unit of analysis was the patient visit. National estimates were generated using the SURVEYMEANS procedure (version 9.1.3; SAS Institute, Cary, North Carolina) for the number and proportion of patient visits, including 95% confidence intervals (CIs), by taking into account the sampling weights and multistage-stratified probability sampling designs of the surveys.

Results. In 2005, American adults 18 years and older made an estimated total of 845 million outpatient visits (95% CI, 757 million–932 million). Measurements were recorded during 42% (95% CI, 39%–46%) of total visits for height, 65% (95% CI, 62%–68%) for weight, and 41% (95% CI, 37%–45%) for both height and weight. Of the visits for preventive care only, the corresponding rates were 52% (95% CI, 46%–58%), 75% (95% CI, 71%–80%), and 51% (95% CI, 46%–57%), respectively. Of the total visits in which BMI was obtainable, 37% (95% CI, 35%–40%) were for patients with a BMI of 30.0 or greater.

Only 29% (95% CI, 25%–32%) of visits by patients who were obese according to their BMI had a documented diagnosis of obesity (Figure). The proportion of visits during which obesity was diagnosed was 19% (95% CI, 15%–22%) for patients whose BMI was between 30.0 and 34.9, 32% (95% CI, 26%–38%) for those whose BMI was between 35.0 and 39.9, and 50% (95% CI, 43%–57%) for those whose BMI was 40.0 or greater. Obesity was diagnosed in less than 2% of visits by patients whose BMI was less than 30.0. Owing to the underreporting of clinical obesity, the agreement between obesity defined by BMI and that by physician diagnosis was low (κ=0.3).

Comment. These results indicate that obesity is underappreciated in clinical practice throughout the United States. Health care providers often fail to obtain needed biophysical patient data and do not clinically identify obesity even when data that are obtained suggest this condition. Barriers to obesity screening and diagnosis are likely multiple and may involve system, health care provider, and patient factors, including but not limited to, the lack of infrastructure to meet the needs of obese patients, lack of time for preventive care, lack of health care provider skills or financial incentives to address obesity, health care provider or patient concerns about weight stigma, and antifat bias by health care providers.5,6 Obesity is a complex chronic condition, and health care providers have an important role in preventing, identifying, and managing obesity.7 Body mass index and waist circumference are simple, validated measures of body fat that provide a reliable prediction of disease risk. Research aimed at determining the barriers to optimal health care for obese patients will guide the development of inter-

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**Figure.** Association of physician-diagnosed obesity with clinically measured body mass index (BMI) (calculated as weight in kilograms divided by height in meters squared). Error bars indicate 95% confidence intervals.
novations or modifications in care delivery to improve health outcomes for obese patients.

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COMMENTS AND OPINIONS

Globalization of Blood Pressure Control

Treatment of hypertension markedly reduces the risk of cardiovascular complications. In a recent survey performed by Ingelsson et al,1 long-term blood pressure (BP) progression across different periods was evaluated. Thus, BP control in participants in the Framingham Heart Study who initially did not have hypertension was analyzed. Two periods were considered. The earlier period ranged from 1953 to 1971 (n=1644; mean participant age, 61 years) and the later period ranged from 1971 to 1990 (n=1040; mean participant age, 58 years). In this study, rates of hypertension control were higher in the later vs the earlier period (32% vs 23%; P<.001), and this translated into a lesser probability of cardiovascular outcomes. As the authors concluded, hypertension treatment in the community has altered the natural history of BP progression and its relation to clinical outcome. However, this is not only related to the introduction of antihypertensive therapy in United States, since BP control rates have continued to increase in the last decade.2

It has been suggested that there is better hypertension control in United States compared with some of the Western European countries, such as France, Germany, Italy, Spain, or the United Kingdom, principally because of a more intensive treatment.2 Nevertheless, new studies developed in Europe have shown that BP control is also rising in those countries.3,4 For example, in the Spanish population, BP control rates have improved from only approximately 15% in the early 1990s to 30% to 40% at present.3 Similar BP control rates have been reported in other European countries such as Italy, France, Germany, or the United Kingdom.2,4

This better BP control found in Western countries is the consequence of a greater awareness about the importance of BP control, not only by reducing BP values, but also because of reasons such as the need of an aggressive multifactorial approach for reducing the overall cardiovascular risk, the need of more strict targets in high-risk populations, a higher use of combination therapy, and the development of on-going medical education programs.1,5,6

However, although these data are encouraging, BP control remains far from optimal. The therapeutic inertia, the incorrect perception of physicians and patients about the BP goal attainment, the suboptimal use of combined therapy, and the nonadherence medication are some of the points that must be enhanced.3,6

In conclusion, all of these data suggest that in the last decades there has been an improvement in BP control in Western countries, secondary to a globalization of the awareness for reducing BP-related complications through an intensification of antihypertensive therapy and more awareness among physicians and patients about the importance of decreasing BP values.

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