RESEARCH LETTER

Obesity perceptions and documentation among primary care clinicians at a rural academic health center

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Summary

Background: Obesity recognition in primary care is important to address the epidemic. We aimed to evaluate primary care clinician-reported documentation, management practices, beliefs and attitudes toward obesity compared to body mass index (BMI) calculation, obesity prevalence and actual documentation of obesity as an active problem in electronic health record in a rural academic center.

Methods: Our target population for previously validated clinician survey was 56 primary care providers working at 3 sites. We used calendar year 2012 data for assessment of baseline system performance for metrics of documentation of BMI in primary care visits, and proportion of visits in patients with obesity with obesity as a problem. Standard statistical methods assessed the data.

Results: Survey response rate was 91%. Average age of respondents was 48.9 years and 62.7% were females. 72.5% clinicians reported having normal BMI. The majority of clinicians reported regularly documenting obesity as an active problem, and utilized motivational interviewing and basic good nutrition and healthy exercise. Clinicians identified lack of discipline and exercise time, access to unhealthy food and psychosocial issues as major barriers. Most denied disliking weight loss discussion or patients taking up too much time. In 21,945 clinic visits and 11,208 annual preventive care visits in calendar year 2012, BMI was calculated in 93% visits but obesity documentation as an active problem only 27% of patients meeting BMI criteria for obesity.

Conclusions: Despite high clinician-reported documentation of obesity as an active problem, actual obesity documentation rates remained low in a rural academic medical center.

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Introduction

Age-adjusted obesity prevalence is 33.5% in males and 36.1% in females [1], while state-specific prevalence in New Hampshire and Vermont was 26% and 23.4%, respectively. The first step in obesity management is for primary care clinicians to document, identify and subsequently address obesity as a disease and is critical in the development and implementation of a personalized action plan. Documentation of weight status results in the promotion of behavioral interventions for obesity [2]. Obesity remains under-recognized, underdiagnosed and undertreated in healthcare settings [3]. Few studies are executed in primary care [4]. We determined the impact of primary care clinician demographics on clinician-reported practices and

determined the perceived barriers and attitudes in improving the quality of care for our rural population using electronic health record (EHR) quality metrics data and a clinician survey.

Subjects, materials and methods

Study setting

Dartmouth-Hitchcock Medical Center (DHMC) is a 381-bed tertiary care rural academic center serving 1.5 million patients, predominantly of Caucasian descent. Three adult primary care centers exist: main campus; off-site hybrid practice of 10 family medicine and internal medicine clinicians; and a community-based center. A total of 56 family and internal medicine licensed clinicians (66.1% physicians, 33.9% associate providers) practice at these sites.

Clinician survey design

We administered a 4-page, paper-based, modified content-validated self-administered instrument (Appendix 1) [5]. Questions focused on clinician-reported obesity documentation, perceptions of obesity, and barriers to managing obesity using Likert-scales. Respondent demographics were collected and informed consent was obtained after institutional review board review. The study was presented at a meeting in November 2013 with surveys completed in-person. Non-responders were sent the survey by mail with an email reminder 3 weeks after initial contact. Unique identifiers tracked participants. No data was available on faculty who joined in 2013.

Quality metric data

The DHMC data repository system provided quality metric data for the 2012 year. This system, established in 1985, consists of a data warehouse and reporting tools whose main purpose is to collect and store data in separate, secure data structures from all the institutional administrative data sets. Multilevel security authorization schemes are needed to use such tools. The year 2012 was chosen as a new EHR was introduced in June 2011.

We defined a *preventive care visit* as an annual visit for patients aged 18—65 years or a 'Welcome to Medicare' or an 'Annual Wellness' visit and a *clinic visit* as any office-based visit which included annual visits. Data had a clinician's section, site, and insurance type for patient-level data. Unique counts of BMI calculated were obtained from defined fields. 'Documented Obesity' was defined as a patient with a BMI $\geq 30\,\text{kg/m}^2$ containing ICD-9 codes for Obesity or BMI $\geq 30\,\text{kg/m}^2$ in EHR problem list or visit diagnosis.

Statistical analysis

Data were combined into a database for analysis. Two-sample t-tests, Wilcoxon rank sum, Chi-squared or Fisher's exact tests were performed, depending on the data type. The percentage of patients with a BMI documented, patients classified as having obesity (patients with a BMI $\geq 30\,\text{kg/m}^2$/patients with a BMI documented), and obese patients with obesity documented in problem list or visit diagnosis were assessed. Subgroup analyses identified univariate differences in results among clinician-reported obesity documentation from survey respondents and the quality metrics data of interest. All data was analyzed using STATA v.10.0 (College Station, TX). $P < 0.05$ was considered statistically significant.

Results

The response rate was 91% (51/56). Most clinicians were aged 51—60 years of age having practiced 11—20 years for 21—30 h/week. A majority reported obesity as a problem and addressed the disease. Most clinicians had a normal BMI (Appendix 1). Clinicians believed that patients lacked discipline to lose weight, had easy access to unhealthy food, did not have time to exercise or had psychosocial problems. Dealing with obesity was frustrating although most denied disliked such discussions (Tables 1 and 2).

Only 27% met criteria for obesity in clinic visits had obesity documented in their visit diagnosis or problem list. Among 74.4% of respondents with clinician-reported obesity documentation practice, actual rates were 30.8% for clinic visits and were significantly different from 25.6% with documentation practices as never/infrequently/sometimes (19.3%; $P < 0.005$). Medicaid patients had high BMIs, prevalence and rate of obesity documentation, irrespective of visit type. Clinic visit data demonstrated differences in documentation between clinicians with differing BMIs.