Physician Use of Electronic Health Records in Obesity Management

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ABSTRACT

Objective: To assess Wisconsin physician knowledge, attitudes, and practices in obesity management.

Methods: The Wisconsin Medical Society distributed an e-mail survey to 12,372 members with questions on obesity causes, barriers to documentation, and training in obesity management.

Results: A total of 590 surveys (4.7%) were completed. Physicians had an accurate fund of knowledge. Reasons given for failure to document obesity were lack of reimbursement, lack of effective treatment, and discomfort in discussing obesity. Only 14% of responding physicians were optimistic about their patients achieving sustained weight loss and only 7% believed they have been successful at treating obesity. Training was infrequent in obesity management.

Conclusions: Survey respondents indicated that additional training and effective tools would help treat obesity. Strategies should be developed that improve physician effectiveness in obesity management.

INTRODUCTION

Despite a positive relationship between obesity reduction and physician acknowledgement of the issue, obesity does not often appear on a patient's problem list in the electronic health record.[1] However, when obesity is entered into the problem list, there is a greater likelihood of intervention.[2,3] Although recent reports indicate that obesity is rising, physicians are providing less weight counseling.[4] A review of the electronic health records in a large health care organization recently found that as many as 65% of recorded body mass indexes (BMI) ≥ 30 were not accompanied with a diagnosis of obesity in the problem list.[5]

In order to develop an intervention to improve obesity management, we surveyed Wisconsin physicians to determine their knowledge, use of electronic health records, problem list inclusion, training, and factors that influenced their referral for obesity management.

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METHODS

Survey Design

We designed a 29-item survey based on 4 key aspects of obesity diagnosis and management: knowledge (3 items); practices in weight management (13 items); attitudes and opinions about obesity (2 items); and training in obesity management (4 items). A description of each of these aspects follows. Seven items asked for demographic information. Oversight for this project was provided by the Institutional Review Board (IRB) of Aurora Health Care (IRB Assurance No. 14-05ET).

Procedures

The survey was e-mailed to 12,372 physician members of the Wisconsin Medical Society (Society) and asked recipients to follow a link to a digital solutions website (Informz, Saratoga Springs, New York) to complete the survey. Two reminder e-mails were sent 1 and 2 weeks later, thanking those who had already responded and encouraging those who had not responded to complete the survey.

Physician responses were collected in Informz in November 2013. Deidentified data was exported from Informz to an Excel spreadsheet.

Data Analysis

Basic descriptive analyses were performed and percentage of responses for each survey question computed. Where appropriate, response percentages in the tables are rank-ordered from highest to lowest.

RESULTS

A total of 590 physicians responded to the survey, representing a 4.7% response rate. Demographic and practice-based characteristics are provided in Table 1.

Physicians were fairly knowledgeable about obesity and reported a variety of documenting practices and management approaches

(Table 2). Significant time and resource limitations were reported, as well as little prior training or success with continued weight management. A majority (51%) of respondents reported wanting additional training in obesity management, whereas 22% preferred no additional training options (Table 3).

DISCUSSION

Effective obesity treatment requires understanding physician knowledge, attitudes, and practices in treating overweight or obese individuals. Respondents provided useful initial information regarding the knowledge, practices, and challenges faced by physicians in managing weight with their patients. Respondents, perhaps being interested in the topic of weight control, identified key aspects of weight gain and obesity. In particular, they identified nutrition and physical activity as important elements, but also responded positively—although less frequently—to the possibility that genetics, family situations, and socioeconomic status are important factors. They appeared engaged in the management of obesity as they reported documenting obesity at much higher rates than measured in the general electronic health record.[5] They identified availability, accessibility, effectiveness, and coverage as limiting factors and indicated that patient acceptance of therapy was limiting. Physicians reported not knowing what tools they could use for patient education and identified little preparation or training for dealing with weight issues and their significant disease consequences.

These data illustrate not only what practices are in use, but also the types of barriers that may reduce physician effectiveness in weight management. Physicians review BMI in the medical chart less than half the time. A possible reason is that although provider counseling and lifestyle modification produce positive results, numerous barriers such as time, reimbursement, and poor guidelines impede this from being done on a more regular basis.[6] Electronic health records could be designed to incorporate nutrition and activity metrics and display these data in an easily interpretable graphic fashion, allowing physicians to review with patients in their time-limited visits.

The limitations of this study predominantly lie with the markedly low response rate from this pool of 12,372 physician members of the Wisconsin Medical Society. The e-mail addresses available to the Society are from membership registration and, though renewed annually, the low open and access response may suggest that not all these e-mails reach a member's primary e-mail or that physician's time to complete these surveys is limited. Those physicians completing the survey would likely represent a motivated and interested subset of the state's physicians who took the time to complete the survey. Lacking prior physician surveys of this e-mail nature on obesity limits our ability to state this conclusion with certainty. However, the demographics of respondents were similar when compared to the physician population of the state. Therefore, we need to consider these results preliminary and find new ways to engage physicians in discussing overweight and obesity with their patients.

Table 1. Demographic Characteristics of the Sample of Respondents

Characteristic	No. (%)
Age (n = 547)	
18-24	0 (0)
25-34	79 (14)
35-44	121 (22)
45-54	148 (27)
55-64	145 (27)
65-74	39 (7)
75 or older	15 (3)
Sex (n = 547)	
Male	306 (56)
Female	241 (44)
Race[a] (n = 542)	
White	467 (86)
Asian	49 (9)
Black or African-American	7 (1)
American Indian or Alaska Native	5 (1)
Hispanic/Latino	3 (1)
Native Hawaiian or Other Pacific Islander	1 (0)
Other	19 (4)
Medical specialty (n = 549)	
Family medicine	151 (28)
Internal medicine	100 (18)
Pediatrics	47 (9)
Surgery	38 (7)
Obstetrics/gynecology	35 (6)
Psychiatry	19 (3)
Other	159 (29)
Practicing physician (n = 542)	
Yes	494 (91)
No	48 (9)
Years practicing medicine (n = 546)	
0-5	108 (20)
6-10	63 (12)
11-20	123 (23)
More than 20	252 (46)
Practice uses electronic health record (n = 548)	
Yes	516 (94)
No	28 (5)
Other 4 (1)	

[a]Race characteristics add up to greater than the sample because individuals were able to make multiple selections.

CONCLUSIONS

The medical and public health significance of our findings pertain to improving obesity diagnosis and management. Survey respondents acknowledged limited access to treatment options and expressed need for additional training and effective tools to help treat obesity. Further strategies are needed to integrate weight management into primary prevention. Improving physician effectiveness in weight management may be an integral part of addressing increasing rates of obesity.

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Table 2. Responses From the Wisconsin Physician Survey Assessing Knowledge, Skills and Attitudes Regarding Obesity Diagnosis and Management

Variable	Percentage
Knowledge About Factors That Influence Obesity (N = 574)	
Diet	98
Activity level	96
Genetics	87
Lack of knowledge about nutrition	84
Depression	84
Family influence	83
Stress/anxiety	81
Motivation	80
Endocrine and metabolic disorders	79
Society status/education	73
Physical environment	71
Income	66
Body Mass Index (kg/m²) Range Respondents Consider Obese (N = 566)	
15-19	0
20-24	1
25-29	7
30-35	81
> 36	11
Percentage of Patient Population Respondents Consider Obese (N = 572)	
0-5	0
6-10	2
11-20	17
21-50	71
> 50	9
Time Spent Addressing Obesity During Subsequent Visits (N = 577)	
I have no time available	8
1-3 minutes	38
4-6 minutes	32
7-10 minutes	14
11-15 minutes	4
> 15 minutes	4
Common Factors Addressed During Obesity Discussions (N = 564)	
Nutrition	93
Physical activity	92
Motivation	54
Resources (finances, parks, gyms, access to healthy food, etc)	53
Behavioral issues	47
Psychological issues	41
Living conditions (crime, violence, residence)	18
None	2

Variable	Percentage
Sufficient Tools Available to Assist in Counseling Efforts (N = 566)	
Yes	31
No	46
Not sure	22
Consultants Available For Referral (N = 564)	
Yes	64
No	21
Not sure	15
Referral Sources For the Consultation of Obese Patients (N = 516)	
Dietitian	84
Bariatric surgeon	43
Exercise/fitness specialist	21
Nonsurgical referral for weight reduction (weight management program, primary care physician, endocrinologist)	18
Intense behavioral interventionist	9
Physical therapist	7
Reasons For Not Always Referring Overweight and Obese Patients to Consultation (N = 552)	
Consultation is not reimbursed	36
Consultation is too expensive	28
Consultation is not available	25
Patient anger, refusal, denial, lack of interest	23
Consultation does not help	17
I prefer to do it myself	12
Embarrassment/difficult topic	7
Not pertinent to the visit	7
I do not know how	5
I always refer overweight and obese patients	4
Interest in Receiving Training in Obesity Management (N = 551)	
Yes	51
No	22
Not sure	26

Table 3. Likert Scale[a] of Physician Responses on Training and Ability to Address Obesity

	1 (Never/Not at all/None)	2	3	4	5 Always/Very Significant
Review of body mass index before patient visit (N = 574)	4%	9%	13%	37%	36%
Add obesity to the problem list (N = 572)	8%	14%	19%	29%	30%
Inform patient of obesity diagnosis (N = 544)	15%	17%	27%	19%	22%
Time to address obesity (N = 566)	11%	37%	35%	11%	6%
Readdress obesity during subsequent visits (N = 544)	7%	19%	32%	29%	13%
Refer patient for consultation (N = 565)	17%	43%	28%	10%	2%
Optimism that obese patients can sustainably lose weight (N = 566)	13%	41%	33%	10%	4%
Degree of success in treating obese patients (N = 558)	19%	47%	27%	5%	2%
Medical school training received in obesity counseling (N = 552)	43%	36%	16%	4%	2%
Residency training received in obesity counseling (N = 550)	42%	32%	16%	7%	3%

[a]Measured frequency of referral or follow-up/level of optimism or success/amount of training from 1 (never/not at all/none) to 5 (always/very significant).

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