

Evaluating the Implementation of a Primary Care Weight Management Toolkit

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ABSTRACT

Objective: With over one-third of adults in the United States classified as obese, new recommendations call for screening all adults for obesity at outpatient visits. The UW Health Fox Valley Clinic does not actively screen for obesity. The objective of this project was to test the feasibility of an obesity screening and brief intervention protocol.

Process: A modified version of the *Promoting Healthier Weight in Primary Care* toolkit was implemented into a family medicine practice for 6 weeks. Patients (N=88) were asked about visit satisfaction and acceptability of weight-focused conversation. Providers (N=22) were asked about acceptability and feasibility of use.

Outcome: Almost all patients (97.7%) found the conversation acceptable. Providers found the toolkit helpful, not confusing for their patients, and easy to use. Time was the greatest barrier.

BACKGROUND

The prevalence of obesity in the United States and the consequences for population health are well documented.¹⁻³ It is estimated that 29% of Wisconsin adults are obese.⁴ Currently, nutrition and physical activity are discussed at less than 50% of ambulatory care visits.⁵ Roughly 20% of the US population uses the health care system each month, making it an ideal location for interventions.⁵ In 2012, the United States Preventive Services Task Force released grade B recommendations that all adults should be screened for obesity at outpatient visits, and all patients who screen positive should be referred to “intensive, multicomponent behavioral interventions.”⁶ Previously this was not a realistic option for many physicians, as most insurance companies did not reimburse for the diagnosis code “obesity.” However, in

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November 2011, Medicare approved reimbursement for intensive weight management by primary care providers, making related interventions more feasible in the primary care setting.⁷

METHODS

This 6-week quality improvement study was conducted at a family medicine clinic in Appleton, Wisconsin to evaluate the feasibility and acceptability of using a toolkit (*Promoting Healthier Weight in Adult Primary Care*⁸) for brief interventions related to obesity. All participants were

at least 18 years of age or older. The study was reviewed by the University of Wisconsin Health Sciences Institutional Review Board and was determined to not require review, because as a quality improvement project it does not constitute research, as defined under 45 CFR 46.102(d).

Toolkit

The toolkit was created by the Vermont Area Health Education Centers (AHEC) Network, Vermont Department of Health, and University of Vermont College of Medicine and incorporates evidence-based strategies (screening guidelines, assessing readiness to change, and goal setting).⁸ The toolkit is a 20-page packet that includes a clinic algorithm to guide visits, education for providers on assessing readiness to change and applying effective motivational interviewing techniques, a 1-page patient weight and health profile to be completed during the visit, and optional patient resources. While based in strong evidence, the toolkit has not been evaluated for feasibility or effectiveness in a primary care setting. For this project, the toolkit was adapted to meet the needs of the clinic using its electronic medical record system. All clinic staff were trained on the toolkit. Patient education packets were developed specifically for each stage of change. These included theory-based materials that patients in the respective stage may find useful, such as how weight influences health outcomes (precontemplation), tips for assessing and overcoming

barriers (contemplation), meal planning (preparation), tracking progress (action), and preventing relapse (maintenance).

Subject Selection

All clinic providers (physicians, residents, physician assistant), nurses, medical assistants, and administrative employees participated.

Only patients with nonacute visits were considered. Non-acute visits included physicals, chronic disease management visits, and follow-ups to previous acute visits (eg, follow-up to gallstones). In addition, clinical discretion was used with screening patients with sensitive reasons for visit (eg, depression, eating disorder, metastatic cancer). Medical assistants reviewed eligible patients with providers and conducted the screening process. A waist circumference and BMI were calculated and noted in the progress note or the medical record. Patients with a BMI ≥ 25 and/or waist circumference ≥ 35 " (female) and ≥ 40 " (males) were flagged; this included inserting a template into "patient instructions" of the medical record, leaving a post-visit patient survey on the desk in the patient room to alert the provider that the patient screened positive, and marking the patient's medical record with a white dot to alert clinic staff that the patient screened positive.

Procedure for Patients who Screen Positive

Providers implemented the toolkit using their own personal style. Providers assessed readiness to change, collaborated with the patient to develop a specific nutrition, physical activity, or weight goal that were documented as a "prescription," and provided an education packet specific to the patient's stage of change.

Surveys

Providers were asked to complete anonymous pre-implementation and post-implementation surveys using Qualtrics software (Qualtrics, Provo, Utah). Surveys included Likert-scale statements and open-ended, rating, and yes/no questions. Patients were asked to complete anonymous post-visit surveys if the toolkit was used during their visit. The survey included 11 Likert-scale statements. The number of patients eligible to complete surveys was not collected but can be estimated at 30 patients per week, for a total of 180 patients during the 6-week survey period.

Measuring Acceptability

Patient acceptability was measured by the percent of patients reporting an acceptable response to a statement. The overall statement acceptability rate was calculated by determining the number of patients reporting that the statement was acceptable. The overall toolkit acceptability rate was measured by averaging the statement acceptability for each statement.

Measuring Feasibility

Feasibility was measured by time required for use, ease of use, and likeliness to use in future practice. Ease of use and likeliness to use

Table 1. Percent of Patients Who Agreed with the Following Statements

Agreement	Statement
98%	My physician thinks my health habits and weight are important.
97%	I liked the way the physician talked to me about my health habits.
97%	I thought talking to my physician about my health habits was helpful.
94%	I want to improve my health through diet and exercise.
94%	I need to improve my health through diet and exercise.
91% ^a	I was offended by questions asked by my physician.
90%	The goals I set with my physician will guide my decisions.
90%	I received information and tools during my visit so that I can reach my health goals.
89%	I am more likely to make dietary or lifestyle changes now that I talked to my physician.
82%	I hope my physician uses this toolkit at my future visits.
70%	I plan to tell someone else about what I learned today from my physician.

^aPercent who disagreed with this statement

in practice were ranked on a scale of 1-10, with 1 being low and 10 being high.

RESULTS

Patient Post-visit Survey

Eighty-eight patient surveys were obtained (response rate of approximately 50% of eligible patients). These 88 patients had an average acceptability response of 90%. Individual statement acceptable response rates are noted in Table 1. Seven out of 88 patients had at least 1 unacceptable response. Of these patients, only 2 (2.3%) had a survey response that was less than 75% acceptable (3 or more responses with <75% acceptable responses). These results show 97.7% acceptability by patients.

Provider Pre-implementation Data

Eighteen of the 22 providers responded to the pre-implementation survey (82% response rate). All providers (100%) thought it was important to talk to patients about their weight and health habits. Eleven of the 18 providers (61%) indicated their reservation with the toolkit is the added time it might take.

Provider Post-implementation Data

Thirteen providers completed the post-implementation survey (59% response rate). The pre- and post-surveys were compared to assess changes in agreement after using the toolkit. All providers still agreed that "it is important to discuss weight and disease prevention with my patients." The number of neutral responses dropped for all statements. Table 2 shows the change in agreement for each statement. Estimated time spent using the toolkit was 3-7 minutes (54%), 8-11 minutes (23%), or >12 minutes (23%). Only 23% of providers said they ever spent less than 3 minutes using the toolkit, while 38% stated they spent more than 12 minutes at least once. Despite this, 85% of providers stated they felt the extra time spent with the patient on the toolkit was beneficial for the patient.

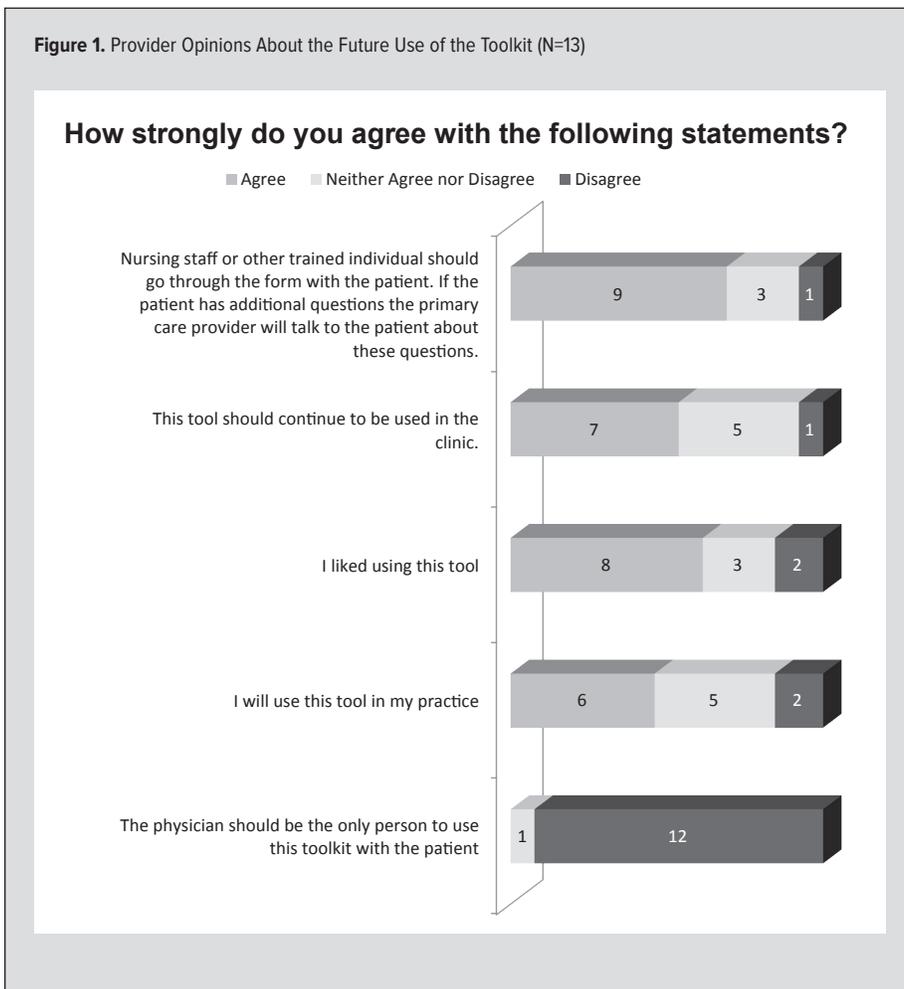
Table 2. Change in Agreement for Provider Presurvey and Postsurvey

Positive Statements	Percent Who Agree		
	Pretest (N=18)	Post-test (N=13)	Change
I think it is important to discuss weight and disease prevention with my patients.	100%	100%	0%
This toolkit will be helpful.	35%	77%	+42%
This toolkit seems easy to use.	22%	69%	+47%
This toolkit will allow me to have an important conversation with my patient that I may not have had otherwise.	50%	46%	-4%
Negative Statements ^a	Percent Who Disagree		
	Pretest (N=18)	Post-test (N=13)	Change
This toolkit took too much time.	17%	8%	-9%
If my patient wants to talk about his/her weight and health habits, s/he will bring them up.	72%	46%	-26%
There are already enough opportunities to talk to my patient about weight and health and no need for new toolkits.	39%	62%	+23%
This toolkit decreased my ability to deliver quality care to my patients.	n/a	69%	n/a
This toolkit was confusing for my patients.	28%	77%	+49%
I will only talk to my patients about weight or health habits if they ask or bring them up.	83%	100%	+17%

A positive change is favorable for each positive statement, indicating an increase in agreement. A negative change is favorable for each negative statement, indicating a decrease in disagreement with negatives statements of the toolkit.

^aNote that these statements are statements one would hope a physician disagrees with, as they are not in support of the toolkit. An increase in disagreement is a positive finding.

Figure 1. Provider Opinions About the Future Use of the Toolkit (N=13)



Providers were asked how strongly they agreed with 5 statements regarding future use of the toolkit (Figure 1). Over half reported that they “liked using the tool” and that “this tool should continue to be used in the clinic.” No providers agreed with the statement “the physician should be the only person to use this toolkit with the patient” and nearly 70% reported that nursing staff should go through the toolkit with the patient and then refer patients for follow-up as appropriate.

DISCUSSION

The purpose of this study was to determine if an obesity screening and counseling toolkit would be an acceptable and feasible option for a screening. The data clearly shows that while the toolkit and conversation were acceptable to the patient, the current form of the toolkit is too time consuming to be used with all patients. The clinic is committed to following the current national recommendation⁶ to screen all adult patients for obesity in an efficient and effective manner.

The provider post-survey responses offered insight into the feasibility of using

the toolkit as a screening method. After using the toolkit, 100% of providers stated they would talk to their patients about weight and health without the patient bringing up the topic, and most reported a need for the toolkit. The data clearly show that the toolkit is useful in a primary care setting; 75% of providers found the toolkit helpful and 70% found it easy to use. Qualitative data from the providers indicated the toolkit served as a conversation guide and that its biggest strength was its format. They found the toolkit was well-suited for initiating the conversation and tailoring their education with the patient. They also felt the toolkit was well-suited for a team approach to weight management.

While the toolkit itself was received positively by providers, it appears the process in which the toolkit was implemented needs improvement; 56% of the providers did not feel that using the toolkit allowed them to have an important conversation with their patients that they may not have had otherwise. Survey responses indicate that the time required to use the toolkit appeared to be the most significant and frequently reported barrier, with 90% stating the toolkit took too much time. Many also reported difficulty using the toolkit effectively during visits that were not dedicated to chronic disease management or annual physical exams. These data suggest that the conversation was rushed and was ultimately less meaningful. Given this, we believe that modifications to the toolkit delivery may allow the clinic team to implement this useful tool without overwhelming the provider.

Based on the results of this pilot study, the clinic has assessed possible modifications to the toolkit to improve its feasibility. The next steps in our quality improvement project include:

- Disseminating the toolkit into 2 visits (screening and intervention).
- Standardization of the toolkit with specific roles for medical assistants and providers and improved electronic medical record dot phrases to be used in patient instructions.
- Using trained medical assistants to complete screening and conduct readiness to change.
- Creating a medical assistant position to aid in coordination of the program.
- Ongoing evaluation of progress and acceptance using the PDCA cycle.

While primary care providers will continue to be responsible for carrying out teaching and intervention protocols, they may coordinate with the current on-site health educator. The clinic plans to conduct an effectiveness and feasibility trial of these modifications in the future. Given the current state of obesity, the clinic understands the success of its program can be useful in guiding programs and decision making in other settings. Because of this, members of the project team have been engaged with other community leaders working with obesity management. It is

anticipated that the success of future efforts in obesity screening and interventions will require developing processes that address concerns about the time required for use of such toolkits.

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