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Communication Study

# Predictors of weight loss communication in primary care encounters

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ABSTRACT

*Objective:* Evidence suggests that physicians' use of motivational interviewing (MI) techniques helps patients lose weight. We assessed patient, physician, relationship, and systems predictors of length of weight-loss discussions and whether physicians' used MI techniques.

*Methods:* Forty primary care physicians and 461 of their overweight or obese patients were audio recorded and surveyed.

*Results:* Weight-related topics were commonly discussed (nutrition 78%, physical activity 82%, and BMI/weight 72%). Use of MI techniques was low. A multivariable linear mixed model was fit to time spent discussing weight, adjusting for patient clustering within physician. More time was spent with obese patients ($p = .0002$), by African American physicians ($p = .03$), family physicians ($p = .02$), and physicians who believed patients were embarrassed to discuss weight ($p = .05$). Female physicians were more likely to use MI techniques ($p = .02$); African American physicians were more likely to use MI-inconsistent techniques ($p < .001$).

*Conclusion:* Primary care physicians routinely counsel about weight and are likely to spend more time with obese than with overweight patients. Internists spend less time on weight. Patient and systems factors do not seem to influence physicians' use MI techniques.

*Practice implications:* All physicians, particularly, male and African American physicians, could increase their use of MI techniques to promote more weight loss among patients.



## 1. Introduction

Patient–physician communication has a direct influence on patient satisfaction and adherence [1–5]. Physician counseling also can influence patients to change weight-related behaviors such as physical activity and diet [6,7]. However, physicians perceive these discussions as challenging [8–14]. Despite the challenges, physicians often counsel their patients to lose weight [15]. Unfortunately, physician communication may not be effective as few patients actually lose weight.

One style physicians could use to enhance patient motivation and confidence to lose weight, improve nutrition, and increase physical activity is motivational interviewing (MI) [16]. MI is a patient-centered, directive style used to help patients resolve ambivalence or resistance about behavior change. The MI approach includes: (1) reflecting back to patients what was heard; (2) praising patients for even small changes; (3) allowing patients to set own goals; (4) asking permission before giving advice; (5) accepting patient's motivation or lack thereof to change – not confronting or judging; (6) working collaboratively while supporting patient autonomy as the patient attempts to change [17,18].

MI may be especially effective when addressing a complex issue such as weight. Most obese patients know they need to lose weight, yet are ambivalent about changing due perhaps to low self-efficacy and lack of skills. Using MI helps translate patient ambivalence into increased motivation. Most people do not like to feel ambivalent; rather, they prefer to compartmentalize their reasons for wanting to lose weight and their reasons for not wanting to lose weight. When these reasons are emphasized and discussed together and ambivalence is heightened, patients might be more motivated to resolve this ambivalence and move toward healthier goals. MI also helps patients who are resistant to change. Unlike other

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approaches that rely more on information giving and trying to persuade patients of the reasons for losing weight, MI helps patients explore their resistance in a non-confrontational and non-judgmental way. Reducing resistance might occur by exploring goals and values and how these might not be congruent.

The MI approach has been successfully applied to help patients lose weight [19–23]. Recent work indicates that MI can also be applied in the health care setting. When physicians counsel about weight use MI techniques, such as reflective listening and asking permission before giving advice, patients are more likely to lose weight [24–26]. This work also indicates that physician's use of MI techniques does not increase the overall time of the visit. Given time constraints of primary care encounters, physicians would never be expected to do in-depth MI counseling during primary care encounters but could incorporate MI techniques into their weight loss counseling. Some factors may enhance or inhibit physicians from using MI techniques. Knowing these factors can help develop interventions to improve use of MI techniques to help patients lose weight.

Epstein [27] proposed a model of factors that affect patient-centered communication (Fig. 1) that could explain physician use MI techniques. Patient factors include: race, age, gender, BMI, motivation, self-efficacy, comfort discussing weight with physicians, and attributions about obesity. Patient demographics, such as patient gender and weight, might predict how weight-loss conversations occur as physicians might believe that women know more about weight loss [28] or because physicians might not feel compelled to convince obese, rather than overweight, patients they need to lose weight [14]. It also could be that patient psychosocial factors like how confident they are they can lose weight affect how physicians counsel. Physician factors include: race, age, gender, BMI, specialty, confidence to counsel about weight, outcome expectations that weight counseling will improve patients' weight, barriers, and comfort discussing weight with patients. Physician demographics, including their weight, as well as their beliefs about their counseling and the efficacy of their counseling, all could affect how they counsel about weight. Relationship factors include whether the patient is a new patient, race concordance and gender concordance of the patient–physician dyad [29]. Visit factors include type of encounter (i.e., preventive vs. chronic care) and patient and physician perceived time constraints.

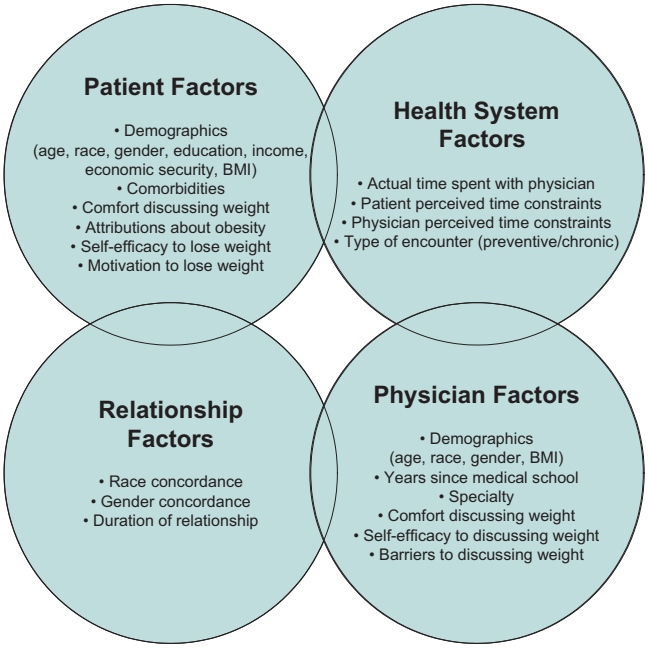


**Fig. 1.** Factors that influence patient-centered communication. Adapted from Epstein PCC.

The aims of these analyses are to describe time spent on weight-related topics, physician use of MI techniques during weight-related discussions, and to determine which patient, physician, relationship, and systems factors related to quantity (time) and quality (use of MI) of these discussions.

## 2. Methods

### 2.1. Recruitment: physicians

Project CHAT (Communicating Health: Analyzing Talk.) was approved by Duke University Medical Center IRB. Methods are described in detail elsewhere [24]. Briefly, we recruited 40 primary care physicians from five community-based practices and told them the study would examine how they address preventive health (not that it was specifically about weight loss counseling). We audio recorded encounters between these physicians and 461 of their overweight and obese patients. Participating physicians gave written consent, gave permission to send patients letters with their electronic signature, and completed baseline questionnaire that included demographic questions and questions about their beliefs about counseling about weight, nutrition, and physical activity (embedded in questions about smoking and alcohol). Physicians completed a final survey after their visits were audio recorded in which we assessed their prior training in behavioral counseling (Fig. 2).

### 2.2. Recruitment: patients

We sent a letter introducing the study to patients and included a toll-free number to refuse contact. One week later, we called patients to review eligibility and administer the baseline questionnaire assessing demographic factors and psychosocial factors related to improving weight, nutrition, physical activity, embedded in questions about nutrition and physical activity. Eligible patients were at least 18 years of age, English speaking, cognitively competent, not pregnant and had a BMI $\geq$ 25. We first assessed self-reported BMI at the telephone screener and verified height at weight at the encounter to determine eligibility.

### 2.3. Audio recording coding measures: quantity

#### 2.3.1. Content

We coded the presence of three primary weight-related topics raised either by physicians or patients: nutrition, physical activity, and BMI/weight. We provide actual examples from both patients and physicians. Examples of nutrition were, "*Pt*: With my work schedule, I am on the road all the time and often end up having to eat out for my lunch and dinners" and "*MD*: How much sweet tea would you say you drink in an afternoon?" Examples of physical activity were, "*Pt*: I try to walk three times a week at the mall in the morning" and "*MD*: We need to get you doing some form of cardio for at least 30 minutes a day where you are working hard enough that your heart is beating fast." Examples of BMI/weight were, "*Pt*: Since Christmas I have put on 5 pounds" and "*MD*: Looking at your chart here, your BMI is 26.5, which classifies your weight as overweight." We calculated the total time spent on weight-related topics, including secondary, less common, topics (e.g., surgery, barriers to losing weight). We calculated the total time spent discussing weight-related topics raised by either patient or physician.

#### 2.3.2. Time spent with physician

We calculated the total time patients were in the room with their physician to assess how much of the visit was spent on weight-related topics.