Patient Education and Counseling 96 (2014) 327–332

Contents lists available at ScienceDirect

Patient Education and Counseling

journal homepage: www.elsevier.com/locate/pateducou

Weight's up? Predictors of weight-related communication during primary care visits with overweight adolescents

Kathryn I. Pollak [a,b,*], Cynthia J. Coffman [c,d], Stewart C. Alexander [c,e], Truls Østbye [b,f], Pauline Lyna [a], James A. Tulsky [a,e], Alicia Bilheimer [a], Rowena J. Dolor [e], Pao-Hwa Lin [e], Michael E. Bodner [g], Terrill Bravender [h]

[a] Cancer Control and Population Sciences, Duke Cancer Institute, Durham, USA
[b] Department of Community and Family Medicine, Duke University School of Medicine, Durham, USA
[c] Durham VA Medical Center (Durham, NC), Center for Health Services Research, Durham, USA
[d] Department of Biostatistics and Bioinformatics, Duke University School of Medicine, Durham, USA
[e] Department of Medicine, Duke University School of Medicine, Durham, USA
[f] Duke-NUS Graduate Medical School, Singapore
[g] School of Human Kinetics, Trinity Western University, Langley, Canada
[h] Division of Adolescent Medicine, Nationwide Children's Hospital, Columbus, USA

ARTICLE INFO

Keywords:
Obesity
Physicians
Adolescents
Weight
Counseling
Motivational
Interviewing

ABSTRACT

Objective: Physicians' use of Motivational Interviewing (MI) techniques when discussing weight with adolescent patients is unknown.
Methods: We coded audio-recorded encounters between 49 primary care physicians and 180 overweight adolescent patients. During weight discussions, we used the MITI 3.0 to assess: Empathy, MI Spirit, open-ended questions, reflections, MI consistent behaviors (e.g., praising) and MI inconsistent behaviors (e.g., confronting). We examined associations of patient and physician characteristics with (1) MI techniques, (2) time discussing weight, and (3) encounter time.
Results: Physicians used more MI consistent techniques with female patients ($p = 0.06$) and with heavier patients ($p = 0.02$). Physicians with prior MI training also used more MI consistent techniques ($p = 0.04$) and asked more open-ended questions ($p = 0.05$). Pediatricians had a higher MI Spirit score than family physicians ($p = 0.03$). Older patient age was associated with physicians spending *less* time discussing weight-related topics ($p = 0.04$) and higher BMI percentile was associated with physicians spending more time discussing weight-related topics ($p = 0.01$). Increased use of MI inconsistent techniques was associated with longer encounters ($p = 0.02$).
Conclusion: Physicians' weight discussions vary based on adolescent and physician characteristics. Importantly, not using MI lengthened encounter time.
Practice implications: Physicians might consider using MI techniques more and attempt to use these equally with all adolescents.

1. Introduction

Patient–physician communication directly influences adult patient satisfaction and adherence to physician recommendations [1–5]. Physician counseling also can influence adult patients to change weight-related behaviors, such as physical activity and diet [6,7]. Evidence suggest some counseling techniques effectively help patients change, namely Motivational Interviewing (MI). MI is a style physicians could use to enhance patient motivation and confidence to attain a healthy weight, improve nutrition, and increase physical activity [8]. MI, a patient-centered and guiding style, helps patients resolve ambivalence or resistance about behavior change. The MI approach includes: (1) reflecting back to patients what was heard; (2) praising patients for behavior changes (even small changes); (3) allowing patients to set their own goals; (4) asking permission before giving advice; (5) accepting patient's motivation or lack thereof to change (i.e., not confronting or judging); and (6) working collaboratively while

* Corresponding author at: 2424 Erwin Road, Suite 602, Durham, NC 27705, USA. Tel.: +1 919 681 4757; fax: +1 919 681 4785.
E-mail address: kathryn.pollak@duke.edu (K.I. Pollak).

http://dx.doi.org/10.1016/j.pec.2014.07.025
0738-3991/

supporting patient autonomy as the patient attempts to make changes [9,10].

MI may help even more when addressing a complex issue such as weight. Many overweight patients are ambivalent about changing weight-related behaviors, due in part to low self-efficacy and lack of skills. Using MI helps translate patient ambivalence into increased motivation through exploring the benefits and costs of change, which amplifies patients' state of ambivalence and motivates them to resolve that ambivalence. The MI approach has been successfully applied to help adult patients lose weight [11–15] and might be relevant to other types of patients in primary care settings. When physicians counsel about weight in an MI consistent way, such as collaborating with the patient and allowing patients to set their own goals and asking permission before giving advice, adult patients are more likely to lose weight [16–18]. This work also indicates that physician's use of MI techniques does not increase the overall time of the visit.

MI might be especially effective with adolescent patients because one central tenet of MI is acceptance that includes supporting patients' autonomy in making changes. Thus, when patients do not want to change, physicians acknowledge patients' lack of motivation without being judgmental. This does not mean condoning unhealthful behaviors; however, it acknowledges and emphasizes that the power to change lies with the patients themselves, not the clinician. Persuasion and confrontation, particularly with adolescents, tend to have the opposite effect than desired, causing patients to become even more set in their behaviors and promoting "sustain talk" (e.g., "I don't want to lose weight." rather than "change talk") (e.g., "I think I can cut back on how much Koolaid I drink.") [19].

However, to date no one has examined primary care physicians' use of MI when discussing weight among overweight and obese adolescent patients and whether using MI affects encounter time. Knowing what factors are associated with increased or decreased physician use of MI techniques and how it affects time spent may help when teaching physicians how to incorporate MI techniques when counseling adolescent patients to attain a healthy weight.

Epstein [20] proposed a model of factors, including characteristics of both patients and physicians that could explain physician use of MI techniques. Patient factors include: race, age, gender, BMI, socioeconomic status, motivation, and comfort discussing weight with physicians. Physician factors include: race, age, gender, BMI, specialty, prior MI training, confidence to counsel about weight, barriers, and comfort discussing weight with patients.

The aims of these analyses are first to (1) examine the length of time spent on weight-related discussion, then (2) describe physicians' use of MI techniques during weight-related discussions with adolescents, (3) determine which patient and physician factors may be related to use of MI in these discussions, and (4) explore the association of MI techniques with the total length of the encounter.

2. Methods

2.1. Recruitment: physicians

Teen CHAT (Communicating Health: Analyzing Talk) was approved by Duke University Medical Center IRB. Briefly, we recruited 49 primary care physicians from 3 academic and 8 community-based practices. Physicians were told the study was about how they address weight with adolescent patients. Of the 183 encounters audio recorded, we include those encounters between physicians and 180 of their overweight and obese adolescent patients in which physicians discussed weight with the patient. Participating physicians gave written consent and gave study staff 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 among questions about smoking and alcohol to not make the focus on weight obvious). When audio recording encounters for physicians, we attempted to mask which encounters were actually being recorded by having the recorder case in every exam room in part to desensitize the physician to seeing it and also in hopes that they would not notice when an actual recorder was inside.

2.2. Recruitment: patients

By reviewing patient electronic records, we identified adolescent patients who had a BMI *z*-score percentile of ≥85th who had an annual check, physical exam, or well being visit appointment scheduled with one of the study physicians in the coming three weeks. We sent these patients and their parents a letter introducing the study, including a toll-free number to refuse contact. The letter stated the study was about how physicians addressed preventive health with adolescents because we wanted families to be blinded to the focus on weight. One week later, we called parents of adolescents to review eligibility and obtain verbal consent and request permission to contact the adolescent. Once we had obtained verbal assent from the adolescent, we administered a baseline questionnaire assessing demographic factors and psychosocial factors related to attaining a healthy weight, nutrition, physical activity, embedded in questions about smoking, drug use, and sexual activity. Eligible patients were 12–18 years of age, English speaking, cognitively competent, not pregnant, and had an age-gender specific BMI percentile >85th. We first assessed self-reported BMI at the telephone screener and verified height and weight at the encounter to determine eligibility.

2.3. Audio-recording coding measures

2.3.1. Weight-related content

Two coders were trained to identify all occurrences and time elapse for six weight-related topics raised either by physicians, parents, and/or adolescents: nutrition, physical activity, sleep, breakfast, fast food and screen time. Training consisted of 30 h over a three-week period. Once coders obtained a high level of agreement through training, they then coded all conversations. Twenty percent of the conversations were double coded for reliability. Cohen's Kappa was used to assess reliability. Any disagreements were discussed and final decisions made by consensus. Reliabilities for all 6 weight-related behaviors: fast food (Cohen's Kappa = 1.0, CI = 1.0); breakfast (Cohen's Kappa = 0.79, CI = 0.95, 0.62); sleep (Cohen's Kappa = 0.70, CI = 0.83, 0.55); physical Activity (Cohen's Kappa = 0.62, CI = 0.79, 0.45); diet (Cohen's Kappa = 0.58, CI = 0.35, 0.80); and screen time (Cohen's Kappa = 0.56, CI = 0.83, 0.23).

2.3.2. Time spent with physician and time spent discussing weight-related topics

Additionally, we calculated the total time patients were in the room with their physician and then the time during the encounter spent discussing weight-related behaviors (nutrition, physical activity, sleep, breakfast, fast food and screen time).

2.3.3. Motivational interviewing

Two independent coders were trained for 30 h to use the Motivational Interview Treatment Integrity scale (MITI 3.0) [21] to assess use of MI techniques during weight-related segments. These MI techniques represent both general patient-centered techniques, such as expressing empathy and practicing reflective listening, and