Communication About Behavioral Health Risks: A Study of Videotaped Encounters in 2 Internal Medicine Practices

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BACKGROUND: As behavioral health risks account for the major causes of preventable morbidity and mortality in the United States, national guidelines recommend that physicians routinely screen patients for risk factors, and counsel as appropriate.

OBJECTIVES: To assess the scope of health risk screening and characterize the communication content of counseling for health behavior change in 2 general internal medicine practices.

DESIGN AND PARTICIPANTS: We studied videotapes of 125 new patient visits to General Internists affiliated with academic medical centers in Chicago, IL (70%) and Burlington, VT (30%). All videotapes were content analyzed to examine (1) the incidence and outcome of screening for diet, exercise, tobacco, alcohol, drugs, sex, seatbelt use, helmet use, firearms, smoke detectors, and sun exposure; (2) the content of counseling for at-risk behaviors, with a focus on 11 counseling tasks associated with health behavior change.

RESULTS: Patient age in these 125 initial visits ranged from 22 to 85 years. Within the 91 visits that included at least 1 screening attempt, there were a total of 361 distinct screening discussions (mean = 3.9, SD = 2.2, range = 1 to 9). Seventy-four (20.5%) of the 361 screening discussions revealed an at-risk behavior. On average, 2.4 of the 11 counseling tasks were accomplished for each of the 74 behavioral health risks (SD = 2.2, range 0 to 9); only education about the problem (56.8%) and general advice about the solution (62.2%) were evident in more than half of the counseling attempts.

CONCLUSIONS: This observational study reveals that communication tasks associated with successful counseling were relatively infrequent occurrences during initial visits in 2 primary care practices.

KEY WORDS: physician–patient communication; health risk; motivational interviewing; counseling.

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METHODS

Sample

Consecutive patients were recruited on a voluntary basis from academic general internal medicine practices in Chicago, IL and Burlington, VT during the years 1997 to 1999. The full data set includes 500 videotaped encounters (i.e., 20 physicians, each with an average of 25 patients) with English-speaking adult patients who signed Institutional Review Board-approved consent forms. All physicians consented to participate in the study as well.

Inclusion Criteria

We focused on initial visits between patients and the study physicians to ensure that participants had not previously

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discussed health risks with each other. Accordingly, we defined initial visits as those between patients who were new to the study physician and had fewer than 12 visits to the practice in the 2 years before the videotaped visit, yielding 125 visits distributed across 19 physicians; 1 physician in the full data set did not have any visits that met the inclusion criteria. The sample included both acute visits (i.e., the patient presented with a specific acute problem) and well visits (i.e., the patient came in for a general check-up, not an acute or immediate complaint). In the Burlington site, patients complete a health risk appraisal form before their initial well visit.

### Communication Coding

We indexed and transcribed all risk discussions using an established set of rules which preserves the structure of interactions. A research assistant and 1 of the authors (A.D.) subsequently coded the transcribed health risk discussions, using the videotapes to reference the full encounter. Interrater reliability was high across all of the mutually exclusive coding categories outlined below (average $\kappa=0.89$); the few disagreements were resolved through discussion with the research team.

#### Screening Patterns

For each risk factor discussed during the visit, we coded: type of health risk (diet, exercise, smoking/tobacco use, alcohol, drugs, sexual behavior, guns, seatbelts, bicycle helmets, smoke detectors, sun exposure), as well as at-risk status for the patient as defined by USPSTF guidelines (e.g., alcohol: >1 drink per day for women, >2 drinks per day for men).

#### Counseling Patterns

For each risk factor identified, we measured the duration of counseling and indexed communication tasks associated with effective counseling about health behavior change. The task approach calls attention to the reality of communication by acknowledging that different skills and strategies can be used to facilitate any 1 task, and that these may vary with the physician, the patient, and the clinical situation. The list of communication tasks used in this study was developed by reviewing literature on communication skills and motivational interviewing for health behavior change. In their guide for practitioners, Rollnick et al. outlined a series of tasks (e.g., establish rapport; assess agenda; assess importance, confidence, and readiness) and associated strategies for achieving behavior change.

Our research team used this set of tasks and strategies as a guide in working with an experienced primary-care clinician (A.R.) to explicate a set of practical steps in the screening and counseling process. More specifically, 11 tasks are highlighted in this study: educate the patient about the problem; show empathy regarding the problem; identify the health behavior as a problem; assess motivation to change; give general advice regarding risk reduction; enlist the patient’s participation in the plan; show empathy regarding difficulties inherent in the potential solution; discuss options; discuss a specific plan; discuss the patient’s ability to follow a plan (i.e., self-efficacy); review criteria to evaluate the plan’s effectiveness. While the physician may be responsible for achieving many of these tasks, some could be accomplished by either physician or patient (e.g., identify the behavior as a problem).

### Additional Factors of Interest

We also gathered demographic information about patients (sex, age, race/ethnicity, level of education completed, occupation-based social class, number of previous visits) and physicians (sex, age, years in practice), as well as the following visit characteristics: type of visit (well or acute); duration of visit (time between physician entering exam room and visit completion); type of prevention (primary, secondary, tertiary) as determined by the relevance of health risk discussions to health problems raised during the videotaped visit.

### Statistical Analysis

As the data are clustered by physician and by site, Generalized Estimating Equation (GEE) analyses have been used to formally evaluate all comparisons, controlling for within-clinic, within-physician and/or within-patient clustering where appropriate. The Gaussian, Poisson, and binomial families were used for continuous, count, and binary data, respectively. While GEE-generated standard errors were used for formal statistical inference, we report standard deviations in the text to facilitate description of continuous and count variables.

## RESULTS

### Study Sample

Of the 500 total visits, 125 met the initial-visit inclusion criterion, 87 (70%) from Chicago and 38 (30%) from Burlington. Just over half (54.4%) were acute visits with an average time of 22.2 minutes (SD=13.7); the remainder were well visits, which had an average time of 31.5 minutes (SD=14.8). Generalized estimating equation analyses demonstrated that these visit parameters were consistent across sites.

Table 1 summarizes information collected about patients in the study, and indicates where significant site-related differences exist in the full sample of 125 visits as well as the subsample of 91 visits during which at least 1 health risk screening discussion occurred. As we focused on initial visits, none of the patients had seen the study doctor before. However, approximately twice as many patients in Vermont had made at least 1 previous visit to the practice within 2 years, and this was the most prominent site-related difference observed (Poisson GEE model, $P<.001$). While all levels of education were represented within the patient sample, from less than high school to a graduate or professional degree, the overall education level was relatively high: 32.1% of patients were college graduates and another 36.6% reported at least some graduate or professional coursework. Similarly, there was representation of social class categories ranging from unskilled to professional, but most patients were in the higher categories of skilled nonmanual (26.2%), intermediate (53.4%), and professional (10.7%).

The 19 physicians in this sample had an average age of 36.7 years (SD=4.8), and had been in practice a mean of 6.9 years (SD=4.1). All were on faculty at either Northwestern University Feinberg School of Medicine or the University of Vermont College of Medicine. About one-fourth of physicians (26.3%) were women, a representative figure for academic medicine practices when the data were collected. Eighteen of the 19 physicians were Caucasian.