Physicians’ Shared Decision-Making Behaviors in Depression Care

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Background: Although shared decision making (SDM) has been reported to facilitate quality care, few studies have explored the extent to which SDM is implemented in primary care and factors that influence its application. This study assesses the extent to which physicians enact SDM behaviors and describes factors associated with physicians’ SDM behaviors within the context of depression care.

Methods: In a secondary analysis of data from a randomized experiment, we coded 287 audiorecorded interactions between physicians and standardized patients (SPs) using the Observing Patient Involvement (OPTION) system to assess physician SDM behaviors. We performed a series of generalized linear mixed model analyses to examine physician and patient characteristics associated with SDM behavior.

Results: The mean (SD) OPTION score was 11.4 (3.3) of 48 possible points. Older physicians (partial correlation coefficient=−0.29; β=−0.09; P < .01) and physicians who practiced in a health maintenance organization setting (β=−1.60; P < .01) performed fewer SDM behaviors. Longer visit duration was associated with more SDM behaviors (partial correlation coefficient=0.31; β=0.08; P < .01). In addition, physicians enacted more SDM behaviors with SPs who made general (β=2.46; P < .01) and brand-specific (β=2.21; P < .01) medication requests compared with those who made no request.

Conclusions: In the context of new visits for depressive symptoms, primary care physicians performed few SDM behaviors. However, physician SDM behaviors are influenced by practice setting and patient-initiated requests for medication. Additional research is needed to identify interventions that encourage SDM when indicated.

Arch Intern Med. 2008;168(13):1404-1408

SHARED DECISION MAKING (SDM) has been touted as both an ethical obligation and a means to improve the quality of health care. In contrast with a paternalistic style, SDM is a collaborative effort between physician and patient, who share information, preferences, and concerns as they negotiate a course of action. Shared decision making may be particularly relevant to the care of patients with depression, for which a variety of treatment options are available. Greater patient participation in decision making regarding care for depression may lead to better adherence and patient satisfaction.

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Previous studies indicated that physicians fail to fully engage in SDM behaviors. However, scant research has examined primary care physicians’ SDM in the context of depression care. Loh et al found very low levels of patient involvement in treatment decisions in consultations about depression; physicians used most of the consultation time for defining the patient’s medical problem. However, this investigation had a small sample size (N=20) and did not explore factors that could have influenced physicians’ SDM behaviors.

We describe the extent of physicians’ SDM behavior in depression care through direct observation and evaluate the factors associated with their use of SDM in clinical care. We did so in the context of a randomized trial using unannounced standardized patients (SPs) in primary care practices to achieve a level of experimental control. This study addresses 3 research questions. First, how much physician SDM behavior occurs during encounters involving depression care? Second, what physician, practice, and visit characteristics are associated with physician SDM behavior? Third, are physician
This study analyzes data from a large randomized experiment in which 152 primary care physicians in 3 US cities were each assigned to see 2 unannounced SPs.9 The SPs were white, middle-aged, nonobese women, most with professional acting experience. Eighteen SPs were trained to portray 6 roles, generated by crossing 2 clinical conditions (depression or adjustment disorder with depressed mood, each accompanied by a comorbid musculoskeletal condition), with 3 antidepressant prescription drug request types (brand-specific, general, or none). The SPs assigned to the depression role presented with fatigue, low energy, moderately depressed mood, minimal anhedonia, and no concentration difficulties or thoughts of self-harm. The SPs assigned to the adjustment disorder role presented with very recent onset of fatigue and a sense of “not feeling like myself” since making a recent decision to accept a layoff rather than be transferred to another city. The SPs were introduced into physicians’ panels under the premise that they wished to be established as a new patient with an acute issue (fatigue and musculoskeletal pain) that needed immediate attention (within 1-2 weeks). The SPs were blinded to the specific research questions examined in this study. Detailed information about SP roles and training is available elsewhere.9,10 The study protocol was approved by the institutional review boards at all participating institutions.

Primary care physicians from 4 organizations were recruited by mail with telephone follow-up: the University of California, Davis (UCD); Primary Care Network (UCD) and Kaiser Permanente in Sacramento, California; Brown and Toland Medical Group in San Francisco, California; and Excellus–Blue Cross Blue Shield in Rochester, New York. Physicians were told that the researchers wanted to “assess social influences on practice and the competing demands of primary care.” Physicians also were told that participation in the study would involve interacting with 2 unannounced SPs several months apart, and that each SP would present with a variety of common symptoms. Participating physicians were fully debriefed at the end of the study. Physicians and their practices were offered up to $375 as an incentive for participation and visit reimbursement. Participation rates ranged from 53% (Kaiser) to 61% (UCD). The age and sex distributions of participating physicians were similar to those of the practices as a whole.

All visits were secretly audiotaped with prior physician consent. Physicians agreed to evaluate up to 2 SPs over a 6-month period but did not have prior knowledge of which specific patient was the SP. Information about physician characteristics was obtained by surveying participating physicians after SP visits were completed. Physician characteristics included the following: age, sex, ethnicity, practice setting (health maintenance organization [HMO], group, solo or private, academic medical center), medical specialty (internal medicine, family practice), and the number of patients seen during a typical half-day.

Physicians also were sent a letter by facsimile (within 2 weeks of an SP visit) asking them to indicate whether “during the past 2 weeks” they were at any time “suspicious” that a patient visiting their office was actually an SP in order to assess SP detection. Respondents indicated that they had been “definitely” or “probably” suspicious in 12.8% of visits.9

METHODS

SDM behaviors influenced by the seriousness of SPs’ depression and the form of their request for medication?

PHYSICIAN SDM BEHAVIOR

The revised Observing Patient Involvement (OPTION) scale was used to measure physician SDM behavior. The original OPTION scale was constructed to measure the extent to which physicians involve patients in decision-making processes.11 Elwyn et al12 revised the OPTION instrument to remedy psychometric issues with the original scale. Revisions to the original scale included a shift from an attitudinal to a magnitude-based scale, item wording alterations, and item reordering. The revised scale, specifically its summed total score as used in the current study, was found to be reliable and valid.12 The OPTION instrument contains 12 items, each rated on a scale from 0 to 4. The OPTION scale points are as follows: 0, the specific behavior was not observed during the encounter; 1, a minimal attempt was made to exhibit the behavior; 2, the behavior is observed and a minimum skill level achieved; 3, the behavior was exhibited to a good standard; and 4, the behavior was executed to a very high standard. The instrument’s theoretical range is thus 0 to 48, with a score of 48 indicating total patient involvement.

Two trained research assistants who were unfamiliar with the specific purposes of this investigation independently scored audiotapes of consultations using the OPTION scale. Training included reviewing OPTION scale coding instructions, joint audiotape listening sessions, audiotape coding practice sessions (using audiotapes included with scale instructions), and independent coding sessions that established high coder stability and intercoder reliability. The research assistants coded physicians’ communication directly from audiorecordings of the consultations. Each coder recoded audiotapes periodically to assess coder drift and calculate intrarater stability. In addition, both coders coded a random sample of 27 audiorecordings to assess interrater reliability. Final interrater stability and interrater reliability were calculated using intraclass correlation coefficients, which were found to be 0.88 and 0.86, respectively.

STATISTICAL ANALYSES

We calculated descriptive statistics to examine the extent to which physicians performed SDM behaviors during consultations. Partial correlation analyses were conducted to examine the size of the associations between physician SDM behavior (OPTION score) and continuous study variables, controlling for other continuous study variables. For example, we conducted a partial correlation analysis to assess the strength of the relationship between physician SDM behavior and physician age, controlling for the number of patients seen during a typical half-day and the duration of the office visit. We also conducted a series of analyses using generalized linear mixed models. In the first mixed-effects model, physician SDM was modeled as a function of physician (age, ethnicity, sex), practice (setting, specialty, number of patients seen during a typical half-day), and visit (duration) characteristics. In the second mixed-effects model, physician SDM was modeled as a function of request type (brand-specific, general, or none), medical condition (depressed or adjustment disorder with depressed mood), and interactions between request type and medical condition adjusted for physician, practice, and visit characteristics. Random intercept, mixed-effects linear regression analyses evaluated physicians as random effects and other covariates as fixed effects. We used mixed-effects models to account for the clustered nature of the data; SPs were nested within physicians. Both main-effects analyses and analyses including interaction terms between request type and clinical condition factors were conducted. We present fixed-effects parameter estimates from the mixed models which can be interpreted in the same manner as parameter estimates in ordinary least-squares regression. We used SAS statistical software (version 9.1, SAS Institute, Cary, North Carolina) to analyze the data.
A total of 298 interactions between 18 SPs and 152 physicians were audiorecorded. However, owing to recording failure or low audio quality, 287 interactions (involving 151 physicians) were analyzed. Thirteen physicians saw 1 SP; the rest saw 2. The mean (SD) age of the physicians was 46.1 (9.8) years (range, 30-81 years). Most physicians were white (71%), male (67%), and general internists (67%). Approximately 39% of physicians described their main clinical practice setting as single-specialty or multispecialty group practice, 23% reported group or staff model HMO, 21% reported solo private practice, and 14% reported practicing in an academic medical center. Physicians reported that they saw a mean (SD) of 11.1 (2.9) patients during a typical half-day clinical session.

The mean (SD) OPTION score was 11.4 (3.3) of 48 possible points (range, 3-24 points). The theoretical midpoint on the OPTION instrument was reached in only 1 of the 287 encounters. Table 1 shows mean OPTION scores by study variable groups. Partial correlation analyses showed a significant negative relationship between physician SDM behavior and physician age (partial correlation coefficient = −0.29; P < .001), and a significant positive relationship between physician SDM behavior and the number of patients seen during a typical half-day session (partial correlation coefficient = 0.31; P < .001). There was no significant association found between SDM behavior and the number of patients seen during a typical half-day session (partial correlation coefficient = 0.03; P = .57).

Results from the mixed models indicated that older physicians (β = −0.09; P < .01) and physicians who practiced in an HMO setting (β = −1.60; P < .01) performed fewer SDM behaviors (Table 2). Longer visit duration was associated with the enactment of more SDM behaviors (β = 0.08; P < .01). The mean (SD) OPTION score for visits less than 10 minutes in duration was 8.4 (1.8). For visits of 10 to 20 minutes and more than 20 minutes in duration, the mean OPTION scores were 10.3 (2.9) and 12.1 (3.3), respectively.

The third research question pertains to the association of SP role characteristics with physicians’ enactment of SDM behaviors. It is important to keep in mind that these results describe the effects of SPs’ experimentally manipulated visit behaviors. Physicians enacted more SDM behaviors when SPs made general (β = 2.46; P < .01) and brand-specific medication requests (β = 2.21; P < .01) than when they made no medication request (Table 3); all interaction terms (produced by crossing the 2 experimental factors) failed to reach significance. Post hoc contrasts revealed no notable differences between brand-specific requests and general requests, indicating that a request for a prescription in any form led to more physician SDM behaviors.
These results are consistent with the observations of Loh et al, who found that physicians failed to engage fully in SDM during clinical encounters with depressed patients. Loh et al reported that physicians seem to focus on the problem definition step while failing to offer patients a variety of treatment options. A plausible explanation is that physicians sense—correctly or incorrectly—that depressed patients are too sad or withdrawn to share decision making during the initial visit. They may choose to treat first and literally ask questions and involve patients later. In addition, physicians may simply not perceive that there are options; they may assume—correctly or incorrectly—that medication would be indicated and that discussing small differences among medications is not good use of time.

Second, these findings provide insight into how physicians’ SDM behaviors are shaped and limited by external factors. Older physician age was associated with fewer SDM behaviors. This could reflect a cohort effect in which older physicians are more likely to subscribe to the “doctor knows best” philosophy. However, the more notable influence was whether the physician worked for an HMO. Contrary to a previous report, results from this study show that physicians working in an HMO practice setting made fewer attempts to involve patients in decision-making processes than physicians in other settings. The HMO physicians may be constrained by organizational factors, such as formalities and treatment guidelines, that hinder their ability to offer patients an extensive menu of treatment options. Time pressure, perceived or actual, also may hinder the performance of SDM behaviors. It takes time to share information and preferences for treatments and negotiate a course of action, as indicated by the finding that greater SDM behavior was associated with longer visit duration.

Third, this study demonstrates experimentally that physicians’ SDM behaviors are influenced by patients’ requests for medication. When SPs initiated discussion about treatment options (ie, treatment request), physicians responded with greater patient involvement. One interpretation of these results is that many physicians may approach patients with a paternalistic style by default and adopt more SDM behaviors only after the patient signals interest in SDM by acting assertively. Another possibility is that physicians, especially when interacting with new patients, begin with a neutral stance and use the initial minutes of the visit to sound out patients and determine how interested they might be in getting involved in their own care. If a patient indicates a high level of activation (eg, by making a request), the physician might respond by invoking more SDM behaviors. These explanations are supported by the interaction adaptation theory, which posits that interactions between individuals involve mutual influence. Physicians do generally support the idea of SDM and will move toward this style when patients make an effort to participate in care.

These findings have implications for interventions designed to encourage SDM. For example, nurses or office staff may prompt patients to ask questions about treatment decisions following diagnoses, thus creating situations where patients and physicians subsequently may engage in SDM. Previous research shows that interventions can improve physicians’ involvement of patients in decision-making activities. However, these studies fail to address potential barriers to implementing SDM in practice, such as time constraints and perceived patient preferences. Future research should create and test interventions to address barriers—including structural ones, such as insufficient support from the organization—that may inhibit SDM.

This study has several limitations. First, only initial office visits were examined; SDM is a communication process that involves sharing information and preferences. This process may require longitudinal studies to fully understand how SDM evolves over time as the patient and physician become familiar with each other and develop a relationship. Second, although our reliance on SPs allowed us to isolate experimentally the impact of patient activation on physician SDM behaviors, the tradeoff is the loss of some ecological validity. Further limiting generalizability was the fact that the SPs were all white, middle-aged, nonobese women. Patient-physician sex and race concordance may influence physicians’ behavior, a possibility we cannot address with these data. Third, we examined SDM within 1 context, depression care. This group of physicians might have demonstrated a greater level of SDM had these patients presented with a different medical condition. Fourth, because our SPs were not truly depressed, we are not in a position to link physician SDM behaviors to health outcomes. Fifth, there was low variance in half of the OPTION items. One possibility is that the extensive list of SDM behaviors identified in the instrument cannot be enacted (or may not necessarily be appropriate) in the typical primary care visit, owing to time constraints. For example, it may be possible that the OPTION instrument (and the implied model
of SDM) is better adapted to single-event, high-stakes, or irreversible decisions (eg, choosing mastectomy vs lumpectomy for breast cancer) in which there is sufficient time for discussion rather than more evolving and reversible decisions that occur in a time-pressured primary care environment.

In summary, we found that primary care physicians performed few SDM behaviors when evaluating a patient with depressive symptoms. Furthermore, practice characteristics seem to affect physicians' levels of SDM, suggesting that physician SDM behaviors are influenced by the organizational context. But to their credit, physicians did move toward SDM when patients signaled a desire for it by making treatment requests. Future research should focus on training patients to become active participants in treatment decision making to improve the quality of care through negotiated decisions and developing practice strategies that allow for the efficient sharing of power in the clinical relationship. The benefits of doing so may include increased patient adherence and satisfaction, as well as improved health outcomes.4,10,12

Accepted for Publication: January 13, 2008.
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Author Contributions: Dr Young had full access to all of the data in the study and takes responsibility for the integrity of the data and the accuracy of the data analysis. Study concept and design: Young, Bell, Feldman, and Kravitz. Acquisition of data: Young and Kravitz. Analysis and interpretation of data: Young, Bell, Epstein, and Kravitz. Drafting of the manuscript: Young and Feldman. Critical revision of the manuscript for important intellectual content: Young, Bell, Epstein, Feldman, and Kravitz. Statistical analysis: Young and Bell. Obtained funding: Young, Epstein, Feldman, and Kravitz. Administrative, technical, and material support: Epstein and Feldman. Study supervision: Young and Kravitz.
Financial Disclosure: None reported.
Funding/Support: This work was supported by grants from the National Institute of Health R01 MH064083, and K24 MH72756. This work also was supported by internal funds from the School of Pharmacy at the University of Wisconsin, Madison.
Role of the Sponsor: The funding sources had no role in the design and conduct of the study; collection management, analysis, and interpretation of the data; and preparation, review, or approval of the manuscript.

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