

## Patient Participation in Medical Consultations: Why Some Patients Are More Involved Than Others

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# Patient Participation in Medical Consultations

## *Why Some Patients are More Involved Than Others*

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**Background:** Patients vary in their willingness and ability to actively participate in medical consultations. Because more active patient participation contributes to improved health outcomes and quality of care, it is important to understand factors affecting the way patients communicate with healthcare providers.

**Objectives:** The objectives of this study were to examine the extent to which patient participation in medical interactions is influenced by 1) the patient's personal characteristics (age, gender, education, ethnicity); 2) the physician's communication style (eg, use of partnership-building and supportive talk); and 3) the clinical setting (eg, the health condition, medical specialty).

**Research Design and Subjects:** The authors conducted a post hoc cross-sectional analysis of 279 physician-patient interactions from 3 clinical sites: 1) primary care patients in Sacramento, California, 2) patients with systemic lupus erythematosus (SLE) from the San Francisco Bay area, and 3) patients with lung cancer from a VA hospital in Texas.

**Main Outcome Measures:** The outcome measures included the degree to which patients asked questions, were assertive, and expressed concerns and the degree to which physicians used partnership-building and supportive talk (praise, reassurance, empathy) in their consultations.

**Results:** The majority of active participation behaviors were patient-initiated (84%) rather than prompted by physician partnership-building or supportive talk. Patients who were more active participants received more facilitative communication from physicians, were more educated, and were more likely to be white than of another ethnicity. Women more willingly expressed negative feelings and concerns. There was considerable variability in patient participation across the 3 clinical settings. Female physicians were more likely to use supportive talk than males, and physicians generally used less supportive talk with nonwhite compared with white patients.

**Conclusions:** Patient participation in medical encounters depends on a complex interplay of personal, physician, and contextual factors. Although more educated and white patients tended to be more active participants than their counterparts, the strongest predictors of patient participation were situation-specific, namely the clinical setting and the physician's communicative style. Physicians could more effectively facilitate patient involvement by more frequently using partnership-building and supportive communication. Future research should investigate how the nuances of individual clinical settings (eg, the health condition, time allotted for the visit) impose constraints or opportunities for more effective patient involvement in care.

**Key Words:** patient participation, physician-patient relationship, doctor-patient communication  
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Regardless of their desire for involvement in medical decision-making, patients who actively participate in the consultation by expressing their concerns, asking questions, detailing their symptoms, and stating their expectations for care are providing the doctor with valuable information for diagnosis and treatment.<sup>1,2</sup> Moreover, patients who take a more active role often are more satisfied with care, receive more information and support from physicians, are more committed to treatment plans, have a better understanding of treatment options, and experience greater improvement in health than do more passive patients.<sup>3-8</sup> By understanding processes that facilitate or hinder patient involvement, physicians should be better able to adapt their own communication and office practices to help patients more effectively participate in medical encounters.

## PROCESSES AFFECTING PATIENT PARTICIPATION: A CONCEPTUAL FRAMEWORK

This investigation focused on 3 types of communication behaviors that represent “active” patient participation: asking questions, expressing concerns and negative feelings (eg, frustration, fear), and being assertive (eg, stating opinions, preferences). These behaviors are active forms of participation because they interject the patient’s perspective into the interaction and can have a powerful influence on the physician’s behavior and decision-making.<sup>9,10</sup> When patients use these behaviors, physicians often respond in a more informative, supportive, and accommodative way because these behaviors reveal the patients’ needs, beliefs, expectations, and preferences.<sup>11–13</sup> Moreover, these behaviors are powerful forms of talk given the norms of conversational etiquette.<sup>14</sup> When a patient asks a question or introduces a topic, the physician is expected to provide an answer or address the topic.

The theoretical rationale for this study is based on the ecologic model of communication in medical consultations.<sup>15</sup> According to the model, the way a patient communicates with a physician is influenced by a complex interplay of personal, physician, and contextual factors. Some of these influences relate to the patient’s communicative predispositions and others are situation-specific. For example, whether the result of differences in their socialization, attitudes, or communicative skill, some patients tend to be more actively involved in medical consultations than others regardless of the clinical setting. Investigators implicitly embrace this assumption when they hypothesize that patient participation varies with the patient’s personal attributes such as his or her level of education,<sup>16,17</sup> beliefs about control in the physician–patient relationship,<sup>18</sup> personality,<sup>19</sup> gender,<sup>20,21</sup> ethnicity,<sup>4,22</sup> or confidence in talking to doctors.<sup>23</sup>

However, patient participation also varies situationally. A potentially powerful influence on patient involvement is the physician’s communicative style. Many patients take a more active role in the consultation when their physicians use partnership-building (eg, asking for the patient’s opinion, using open-ended questions) and other types of supportive communication (eg, reassurance, encouragement)<sup>11,12,24–26</sup> because these behaviors legitimize the patient’s perspective and create expectations and opportunities for the patient to discuss needs and concerns.<sup>9</sup> Conversely, physician behaviors that focus on control (eg, interruptions, issuing directives) marginalize the patient’s perspective and discourage patient participation.<sup>1,27</sup>

Other situational influences relate to the nuances of individual clinical settings. The clinical context is obviously complex and includes a host of variables such as the patient’s health condition, standards of care, time allotted for the visit, type of visit (eg, initial vs. follow up), type of physician practice (eg, generalist vs. specialist), type of healthcare facility, and so forth.<sup>15,28</sup> According to the ecologic model, context affects physician–patient communication through its influence on the interactants’ perceptions, emotions, and goals for the consultation. For example, physicians exert

more control and patients are less participatory in consultations scheduled for shorter periods.<sup>29</sup> A likely explanation is that the physician perceives a need to exert more control in the encounter to accomplish the tasks in the time allotted.<sup>30</sup>

## HYPOTHESES AND RESEARCH QUESTIONS

Guided by the ecologic model, we predict that in a study of several clinical settings, patient participation will vary depending on multiple factors, including 1) the patients’ personal characteristics (gender, ethnicity, education, age); 2) the physicians’ use of partnership-building and supportive talk; and 3) the clinical setting. Because we believe that the physicians’ communication will have a particularly powerful influence on patient involvement, we explored more thoroughly the connection between active patient participation and physician partnering and supportive talk. To do this, we examined the extent to which active patient participation was *patient-initiated* (ie, volunteered by the patient) or *physician-prompted* (ie, in direct response to physician partnership-building or supportive talk). Analyses were then conducted for each type of patient participation using the patients’ characteristics and the clinical setting as predictors. Finally, because the physician’s communication may be influenced by personal (eg, gender<sup>31,32</sup>), patient (eg, ethnicity<sup>33–35</sup>), and other contextual variables (eg, medical specialty<sup>36</sup>), we also examined whether physician partnership-building and supportive talk varied among the clinical sites.

## METHODS

### Overview

We tested these hypotheses using a convenience sample of data pooled from 3 diverse clinical settings: patients with systemic lupus erythematosus (SLE) in California, primary care patients in California, and patients with lung cancer at a Texas VA hospital. These samples were chosen because the research team had access to the data and because each sample shared 3 important characteristics. First, each used the same method for coding patient participation. Second, each study collected data on physician gender and patient gender, age, ethnicity (self-reported by the patient), and level of education (see Table 1). Third, each study coded information on which patient saw which physician, thereby allowing to control for the doctor as a random effect.

We also realize limitations in pooling these data. Each study used different coders, and information on physician age, ethnicity, training, and relational history with the patient was not collected across all studies. However, the diversity of the 3 settings is also a strength. Because the same coding scheme was used, we can identify what variables affecting patient participation transcend different clinical settings. We also can assess variation uniquely associated with a particular setting. Because detailed information about the methods of each study is presented elsewhere, we provide only a brief description of the participants and research settings. All studies received appropriate Institutional Review Board approval.

**TABLE 1.** Characteristics of the Sample

Variable	Total	Primary Care	Systemic Lupus Erythematosus	Lung Cancer
No.	279	135	79	65
Percent (%) women	156 (56%)	74 (55%)	79 (100%)	3 (5%)
No. (%) of consults with female doctors	99 (35%)	66 (49%)	21 (27%)	12 (18%)
Patient education				
No. (%) high school or less	104 (37%)	46 (34%)	23 (29%)	35 (54%)
No. (%) some college/technical school	112 (40%)	53 (39%)	32 (41%)	27 (42%)
No. (%) college, graduate/postgraduate	63 (23%)	36 (27%)	24 (30%)	3 (5%)
Patient age, mean (years)	55.2	57.9	43.2	64.1
Range	20–86	20–85	21–76	42–86
Patient ethnicity				
No. white (%)	185 (66%)	98 (73%)	39 (49%)	48 (75%)
No. black (%)	39 (14%)	8 (6%)	14 (18%)	17 (25%)
No. Hispanic (%)	25 (9%)	14 (10%)	11 (14%)	0 (0%)
No. Asian (%)	15 (5%)	4 (3%)	11 (14%)	0 (0%)
No. other (%)	15 (5%)	11 (8%)	4 (5%)	0 (0%)

### Patients With Systemic Lupus Erythematosus

This study<sup>4</sup> took place in 4 rheumatology clinics in the San Francisco metropolitan area. The purpose of the descriptive study was to examine whether greater patient participation by patients with SLE was related to improved health and functional status 1 year after the consultation. The study was limited to women because SLE most commonly affects women. Of the 100 patients recruited to participate in the study, 21 did not have their consultations audiorecorded because of logistic or technical problems, leaving a final sample of 79 patients. The patients visited with one of 7 attending rheumatologists (2 female) or one of 4 rheumatology fellows (2 female). These were follow-up visits typically scheduled for 10- to 15-minute appointments.

### Primary Care Patients

The data in this study<sup>18</sup> were collected as part of the Physician Patient Communication Project in the Sacramento, California, area.<sup>37</sup> This study examined whether physicians' and patients' respective orientations toward the physician-patient relationship (doctor-control vs. shared control)<sup>38</sup> affected patient participation and physician use of partnership-building. The physicians (internal medicine and family medicine) and patients were recruited from a primary care network and from the clinics of a group model HMO. These were primary care visits typically scheduled for 10- to 20-minute appointments.

A total of 10 male and 10 female physicians participated in the study. Half the physicians (5 male and 5 female) self-reported a doctor-control orientation to the physician-patient relationship and the other half (5 male and 5 female) reported a shared control orientation. Each physician interacted with 2 male and 2 female patients preferring doctor control and 2 males and 2 females preferring shared control. This created an initial sample of 160 consultations. However, because of audiorecording problems, other family members

who actively participated in the discussions, and incomplete consultations (physician and patient left the examination room), a total of 135 consultations were suitable for analysis.

### Lung Cancer

These data came from a study conducted in the oncology and thoracic surgery clinics at a VA Medical Center in Texas.<sup>39</sup> The purpose of the study was to evaluate whether physician-patient communication was associated with the patient's ethnicity, trust in the doctor, and satisfaction with care. Patients recruited for the study had a diagnosis of lung cancer or a pulmonary nodule that was suspicious for lung cancer. Consultations were generally the patient's first visit to that physician and scheduled for up to 30 minutes. Of 238 eligible patients, 178 consented to participate. Of 142 visits that were audiotaped, 12 were excluded as a result of audiorecording problems or incomplete consultations. For the purposes of this analysis, we excluded those visits ( $n = 65$ ) in which a patient's companion was present and contributed more than 15% of the total patient plus companion talk. This left a final sample of 65 interactions. The patients visited with one of 4 attending oncologists (2 female), 2 attending thoracic surgeons (both male), or one of 12 thoracic surgery fellows (3 female).

### Verbal Behavior Coding

#### Operational Definitions

In each study, communication measures were coded from audiotapes using a system developed by Street and colleagues.<sup>4,10–12</sup> Three types of speech acts were coded as active patient participation: asking questions, assertive responses (eg, offering opinions, making a request, introducing a new topic), and expressions of concern or other negative emotions (see Appendix 1). Physician partnership building included verbal acts that either encouraged patient involvement (eg, asked for the patient's preferences) or affirmed or accommodated the patient's active participation (eg, agreed

with the patient, granted a request). Supportive talk represented verbal behaviors that validated or supported the patient's emotional or motivational state (eg, reassurance, encouragement, comfort, praise) (see Appendix 1).

## Coding Procedures

Compared with other types of communication (eg, information-giving by the patient, physician question-asking), active patient participation and physician partnership-building and supportive talk occur much less frequently (less than 20% of patient and physician utterances).<sup>10,40</sup> Hence, transcripts of the entire consultation were not necessary to code targeted behaviors. Instead, coders first listened closely to the audiorecording of the consultation to identify behaviors of interest. Once a targeted behavior occurred (eg, a patient's expression of concern, a physician's partnership statement), the coder then transcribed that portion of the dialogue along with 3 speaking turns before and after the speaking turn that produced the targeted behavior. The "utterance" served as the unit of analysis for coding. An utterance is the oral analog of a sentence and may be in the form of a simple sentence, multiple predicate, independent clause, or acknowledgment. For example, "I'm worried it may be cancer" would be one utterance coded as a patient's expression of concern. "I'm worried it may be cancer, and that really scares me" would be coded as 2 utterances expressing concern.

In each study, 2 to 3 coders were used, each of whom received 8 to 12 hours of training. In all cases, reliability (Cohen's kappa) was sufficient, ranging from 0.61 to 0.97 depending on the behavior and the study.

## Data Analysis

### Primary Analyses

The data were analyzed in 2 ways to assess the independent effects of the patient's personal characteristics, the physician's use of facilitative communication, and the clinical setting on patient participation. First, measures of the frequency with which patients asked questions, expressed concerns, and were assertive, along with a composite measure of active patient participation (ie, the sum of the 3 types of behaviors), were individually treated as dependent measures in models that included physician partnership-building, physician supportive talk, physician gender, the clinical setting, and the patient's education, age, ethnicity, and gender as predictors.

Although we expected patient participation to increase as physicians used more partnering and supportive talk, it is also possible that other factors (eg, the scheduled length of the visit) could confound these relationships. Thus, for a second set of analyses, we created 2 additional measures of patient participation. *Physician-prompted* patient participation included questions, acts of assertiveness, and expressions of concern that were in direct response to physician partnership-building or supportive talk (see Appendix 1). *Patient-initiated* active participation occurred when patients produced these behaviors independent of physician partnership-building and supportive talk. Analyses were conducted on each of these patient participation measures using the patient's char-

acteristics (ethnicity, gender, education, age), physician gender, and the clinical setting as predictors. Finally, to identify variables affecting physician behavior, individual analyses were conducted on partnership-building and supportive talk using the patients' characteristics, physician gender, and clinical setting as predictors.

For each of the analyses described here, multivariable mixed linear regression procedures were used entering all the predictor variables into the model simultaneously and treating the physician as random effect.<sup>41</sup> This analysis allowed us to identify the independent contribution of each predictor to the criterion variable.

## Secondary Analyses

Although our statistical models accounted for variation related to differences among clinical settings, we were also interested in whether the pattern of results observed for the pooled data would also characterize findings within individual settings. Thus, for each setting, we also examined whether active patient participation was related to the patient's characteristics and the physician's use of partnering and supportive talk.

## RESULTS

### Overview

Patients on average asked just over 6 questions per consultation (range, 0–42), produced over 7 acts of assertiveness (range, 0–60), and 3 expressions of concern or negative emotions (range, 0–20). Active patient participation was 7 times more likely to have been patient-initiated (mean, 14.03 utterances; range, 0–96) than physician-prompted (mean, 2.00; range, 0–20). Proportionally, only 16% of the patients' participation was directly prompted by physician partnership-building or supportive talk. Regarding physicians' communication, the doctors engaged in partnering behavior at least once in 83% of the consultations (mean, 3.27 utterances; range, 0–25), but supportive talk in the form of praise, encouragement, reassurance, and empathy occurred in only 38% of the interactions (mean, 1.01 utterances; range, 0–19).

## Factors Predicting Patient Participation

Patients were more active participants the more their physicians used partnership-building and supportive talk (see Table 2). Patients with at least some college education tended to be more active communicators than were less educated patients. Patients with lung cancer produced more active participation behaviors than did patients with SLE and primary care patients. The random effect related to individual doctors was also significant ( $P < 0.02$ ), suggesting that patient participation to some extent depended on the physician. This pattern of results also held true for specific types of patient participation with 3 exceptions. First, although more educated patients asked more questions and were more assertive than less educated patients, they did not more often express concerns. Second, expressions of concerns were related to gender because female patients almost twice as often

**TABLE 2.** Predictors of Active Patient Participation

Variable	Adjusted Mean*	Confidence	Beta <sup>†</sup>	P <sup>‡</sup>
Doctor partnership-building			1.39	<0.001
Doctor supportive talk			2.03	<0.001
Patient education				0.021
High school or less	13.83	(10.61–17.05)		
Some college or more	17.44	(14.58–20.30)		
Patient race				0.075
White	17.17	(14.21–20.14)		
Nonwhite	14.10	(10.82–17.37)		
Patient gender				0.19
Male	14.32	(10.93–17.70)		
Female	16.95	(13.76–20.14)		
Patient age (years)				0.158
<56	14.40	(11.26–17.54)		
56 or older	16.87	(13.73–20.01)		
Physician gender				>0.2
Male	16.47	(13.49–19.45)		
Female	14.80	(10.89–18.71)		
Clinical context				<0.001
Primary care	11.30	(7.93–14.66)		
Systemic lupus erythematosus	11.21	(5.73–16.69)		
Lung cancer	24.39	(19.21–29.58)		

\*These scores are adjusted means for average number of active patient participation utterances per consultation.

<sup>†</sup>Because partnership-building and supportive talk were coded as continuous variables, beta coefficients were used as tests for statistical significance.

<sup>‡</sup>These results were generated from multivariable linear regression procedures that entered all the predictor variables into the model simultaneously and treated the physician as a random effect. These effects represent the independent contribution of each predictor to the criterion variable.

expressed worry, concern, and other negative feelings than did male patients (adjusted means, 3.25 vs. 1.75 utterances;  $P < 0.01$ ). Finally, physicians' supportive talk predicted patients' expressions of concern and assertiveness but was unrelated to question-asking.

With respect to patient-initiated and physician-prompted patient participation (see Table 3), white patients self-initiated more active participation than did nonwhite patients. Because nonwhite patients were of different ethnic origins, we compared patient-initiated participation across each group. Asian-American, black, and Latino/a patients produced fewer active participation behaviors (adjusted means, 10.53, 10.71, and 14.91 utterances, respectively) than did white patients (adjusted mean, 17.48 utterances). Patients listing their ethnicity as "other" had participation levels comparable to whites (adjusted mean, 17.88 utterances). No variables emerged as significant predictors of physician-prompted active participation.

### Factors Predicting Physician Communication

Physicians seeing patients with lung cancer generally used more partnership-building and supportive talk than physicians seeing patients with SLE and primary care patients (see Table 4). Female physicians offered significantly more supportive talk than did male doctors. Also, physicians generally used more supportive talk with white patients than with nonwhite patients. A post hoc comparison indicated that

doctors used the most supportive communication with white patients (mean, 1.72 utterances) compared with Latino/a, Asian-American, and "other" patients (means, 1.41, 1.05, and 1.15 utterances, respectively). Supportive talk was particularly sparse in the interactions with black patients (mean, 0.56 utterances).

### Findings Within Clinical Settings

Although the clinical setting was included in the statistical models, we were also interested in whether the pattern of results within individual clinical settings paralleled the pooled sample. Table 5 summarizes these results. With the exception of the physicians' use of supportive talk with patients with SLE, within each setting, patients were significantly more active communicators when their physicians used partnering and supportive talk. More modest, however, was the evidence of significant individual differences in patient and physician communication. Although the empiric trends paralleled findings of the pooled sample, more educated patients were significantly more participatory only in the primary care setting, white patients self-initiated significantly more active participation only in lung cancer setting, and physician supportive talk was significantly related to the patient's ethnicity and the physician's gender only in the primary care and SLE settings, respectively (see Table 5).

**TABLE 3.** Predictors of Patient-Initiated and Physician-Prompted Patient Participation

Variable	Patient-Initiated Participation			Physician-Prompted Participation		
	Adjusted Mean*	Confidence Interval	P	Adjusted Mean	Confidence Interval	P†
Patient education			0.12			>0.2
High school or less	13.70	(10.40–16.99)		1.95	(1.32–2.57)	
Some college or more	16.23	(13.30–19.16)		1.86	(1.32–2.41)	
Patient race			0.01			>0.2
White	17.23	(14.22–20.23)		1.91	(1.36–2.46)	
Nonwhite	12.70	(9.33–16.08)		1.91	(1.26–2.55)	
Patient gender			>0.2			>0.2
Male	14.12	(10.63–17.61)		1.68	(1.01–2.35)	
Female	15.81	(12.52–19.11)		2.13	(1.51–2.76)	
Patient age (years)			>0.2			>0.2
<56	13.88	(10.65–17.12)		1.78	(1.17–2.38)	
56 or older	16.05	(12.82–19.27)		2.04	(1.43–2.65)	
Physician gender			>0.2			>0.2
Male	14.54	(11.50–17.59)		1.90	(1.36–2.44)	
Female	15.39	(11.42–19.35)		1.91	(1.19–2.63)	
Clinical context			<0.001			>0.2
Primary care	7.82	(4.41–11.22)		1.52	(0.92–2.12)	
Systemic lupus erythematosus	10.46	(4.84–16.08)		1.78	(0.76–2.80)	
Lung cancer	26.62	(21.38–31.86)		2.42	(1.45–3.39)	

\*These scores are adjusted means for average number of active patient participation utterances per consultation.

†These results were generated from multivariable linear regression procedures that entered all the predictor variables into the model simultaneously and treated the physician as a random effect. These effects represent the independent contribution of each predictor to the criterion variable.

**TABLE 4.** Predictors of Physician Partnership-Building and Supportive Talk

Variable*	Partnership-Building			Supportive Talk		
	Adjusted Mean†	Confidence Interval	P	Adjusted Mean†	Confidence Interval	P‡
Physician gender			>0.2			<0.01
Male	3.52	(2.80–4.23)		0.82	(0.31–1.32)	
Female	3.80	(2.86–4.74)		1.80	(1.15–2.45)	
Patient gender			>0.2			>0.2
Male	3.71	(2.85–4.56)		1.40	(0.84–1.96)	
Female	3.61	(2.81–4.41)		1.21	(0.68–1.74)	
Patient race			>0.2			<0.01
White	3.64	(2.92–4.35)		1.71	(1.22–2.20)	
Nonwhite	3.67	(2.85–4.50)		0.91	(0.36–1.45)	
Patient education			<0.07			>0.2
High school or less	4.04	(3.25–4.85)		1.34	(0.81–1.87)	
Some college or more	3.26	(2.56–4.00)		1.27	(0.79–1.75)	
Patient age (years)			>0.2			>0.2
<56	3.63	(2.85–4.41)		1.34	(0.82–1.87)	
56 or older	3.68	(2.90–4.46)		1.27	(0.74–1.79)	
Clinical context			<0.01			<0.01
Primary care	2.55	(1.76–3.35)		0.51	(–0.06–1.08)	
Systemic lupus erythematosus	3.36	(2.02–4.69)		1.41	(0.49–2.33)	
Lung cancer	5.06	(3.80–6.32)		2.00	(1.14–2.86)	

\*Analyses controlled for the composite measure of active patient participation.

†These scores are adjusted means for average number of utterances per consultation.

‡These results were generated from multivariable linear regression procedures that entered all the predictor variables into the model simultaneously and treated the physician as a random effect. These effects represent the independent contribution of each predictor to the criterion variable.

**TABLE 5.** Relationship of Main Findings to Results Within Individual Settings

Main Study Result	Clinical Settings		
	Primary Care (n = 135)	Systemic Lupus Erythematosus (n = 79)	Lung Cancer (n = 65)
More active patient participation			
With more partnership-building	†	†	0
With more supportive talk	†	*	†
By more educated patients	*	0	0
Self-initiated patient participation			
White patients more than nonwhite	0	0	†
Physician supportive talk			
More to white patients than nonwhite	*	0	0
More by female doctors than male	0	†	0

\* $P < 0.1$ .† $P < 0.05$ .

0, nonsignificant trend in the same direction.

## DISCUSSION

### Explaining Differences in Patient Participation

Previous studies of factors affecting patient participation (and physician–patient communication in general) focus on the influence of individual variables (eg, gender, physician partnership-building) or class of variables (eg, patient demographics, patient-centered communication). Such a perspective is too narrow to adequately account for the wide variability in patient involvement. Our findings indicate that degree to which patients actively participate in medical encounters is a function of multiple patient, physician, and contextual factors.

First, physician–patient interactions, like other communicative encounters, are processes of mutual influence in that each interactant's behavior may constrain or facilitate the other's response. Consistent with other studies,<sup>11,12,24–26</sup> we found that patients were more active participants when interacting with physicians who more frequently engaged in partnership-building and supportive talk (see Table 2). However, to suggest that patient participation depends largely on these physician behaviors is misleading given that most of active patient participation (84%) in this study was self-initiated by the patient. Because physicians on average only occasionally used partnering and supportive verbal communication (see Table 4), it is reasonable to conclude that physicians have a powerful influence on patient involvement but in general underuse behaviors that can optimize patient participation in medical encounters.

Second, what unfolds during a medical encounter will in part reflect the nuances of individual clinical settings. In this study, patients with lung cancer displayed more active participation behaviors than did SLE and primary care patients (see Table 2). Of course, we can only speculate on these differences. Perhaps recently diagnosed patients with lung cancer are experiencing great fear and uncertainty and want to be more actively involved in their consultations than does the average patient with SLE or primary care patient; or,

perhaps patients with lung cancer were more active participants because they had more time allotted for their visits (up to 30 minutes) compared with the time given for SLE and primary care visits (10–20 minutes). Several studies show that there is more patient participation in longer visits.<sup>16,29</sup> Of course, other contextual differences (eg, health condition, medical specialty) may account for some variability in patient participation in this study. Briefly stated, context matters. More research is needed to examine how specific contextual features (eg, visit length, type of practice) influence the physicians' and patients' communicative goals and strategies for the interaction.

Third, we predicted that some groups of patients (eg, more educated, women) would be more active communicators regardless of the clinical setting. Consistent with other research,<sup>16,17</sup> more educated patients generally were more active participants than less educated patients, and women more frequently expressed concerns and negative emotions than did males. Also, nonwhite patients had less self-initiated active participation than did white patients. However, the degree of individual differences in patients' communication was quite modest. Only within some settings were these effects statistically significant, although the empiric trends were in the same direction (see Table 5). Larger sample sizes may be needed to detect differences related to demographic variables. Importantly, other factors (eg, the clinical context, the physician's communicative style) often have a more powerful influence on patient participation than demographics.

Perhaps most noteworthy, our findings provide evidence of communication patterns that could perpetuate patient passivity.<sup>24</sup> Not only did nonwhite patients self-initiate less active participation than whites, physicians also used less supportive talk with nonwhite patients. Although we observed no ethnicity effect for partnership-building, other investigations have reported that medical encounters with black patients tend to be less patient-centered and positive than visits with white patients.<sup>33–35</sup> These findings have



significant implications in the context of disparities in health care.<sup>42</sup> Not only are some patients less inclined to take an active role in the consultation, they also may be less likely to have their involvement supported and encouraged. Overcoming barriers to participation may be particularly important for nonwhite patients given one study that found physicians recommended more thorough diagnostic testing for black patients only after the patient was assertive and explicitly told the doctor she was concerned and wanted to know her treatment options.<sup>43</sup>

## Improving Physician–Patient Communication

Although physicians on average used facilitative communication infrequently, there was considerable variability indicating that some doctors engaged in partnership-building and supportive talk with some regularity, whereas others did not. Consistent with other research,<sup>31,32</sup> female doctors were more likely to use supportive talk than were male doctors. Regardless of the physician's and patient's communicative inclinations, educational interventions can help both learn communication skills to improve the quality of their interaction.

Because experienced doctors typically have developed their own routine for communicating with patients, interventions need to be intensive and use multiple pedagogic methods (eg, role play, self- and peer evaluation) if new skills are to become part of the physician's communicative repertoire.<sup>44,45</sup> Moreover, patient-centered communication should be taught early in medical education when future physicians are developing their clinical skills. Although greater patient participation may lead to longer visits,<sup>29,33,46</sup> other research shows that avoiding interruptions, responsiveness to patients' clues,<sup>47</sup> and other patient-centered techniques<sup>48</sup> do not necessarily add significantly to the length of the consultation, especially if physicians and patients prioritize the topics discussed.<sup>46</sup>

With respect to patients, successful "patient activation" interventions are those that promote the legitimacy of the patient's involvement in care, provide information about the patient's health condition and treatment options, and offer specific communicative strategies (eg, writing down questions and concerns before the visit) for their interactions with physicians. Moreover, patient activation interventions can be conveniently and successfully delivered just before the consultation<sup>49</sup> when there is an immediate opportunity to act on the motivation and skills gained from the intervention.

## Limitations and Directions for Future Research

This investigation has several limitations that raise questions for future research. First, we examined *quantitative* measures of patient participation and physician partnership-building and supportive talk rather than the *quality* of this communication. An important question remains unanswered: What communicative behaviors effectively but efficiently elicit and address the patient's agenda within the time allotted for the visit? Second, our partnership-building and supportive talk measures were narrow and did not include nonverbal (eg, eye contact, head nodding) and other patient-focused verbal behaviors (eg, questions about psychosocial topics, humor,

social conversation) that could influence patient involvement. Relatedly, although we made an important distinction between patient-initiated and physician-prompted patient participation, future research should use statistical methods (eg, lag sequential analysis) that can identify patterns of physician responses that facilitate (or hinder) more active patient participation.

Although some variability in patient participation and physician communication was related to the patient's ethnicity, education, and gender, it is not clear *why* these differences emerged. Future research should identify specific cognitive, affective, and cultural factors (eg, physician and patient goals, perceptions, and attitudes) that account for variability related to demographic characteristics. For example, in this study, Asian-American and black patients self-initiated less active participation than did white patients, but likely for different reasons. Asian-Americans culturally place value on indirect and less assertive communication, especially when interacting with people having high status.<sup>22</sup> Black patients, on the other hand, may have been less participatory because of a general mistrust of the healthcare system.<sup>50</sup> Finally, we did not investigate whether these features of physician–patient communication predict postconsultation outcomes such as patient satisfaction, adherence, and health improvement. Future studies should not only include outcomes in their analyses, but they also should explore reasons why communication within a single consultation might be linked to long-term outcomes.

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## APPENDIX 1

### Active Patient Participation Behaviors

#### 1. Asking Questions

Utterances in interrogative form intended to seek information and clarification. Examples:

What does that medicine do?

Why does it hurt when I lift my arm?

When should I get my next checkup?

#### 2. Expressions of Concern

Utterances in which the patient expresses worry, anxiety, fear, anger, frustration, and other forms of negative affect or emotions. Examples:

I'm worried about cancer given my family history.

I'm afraid this might be something serious.

I'm so tired of this hurting all the time!

I didn't like the way that other doctor treated me.

#### 3. Assertive Responses

Utterances in which the patient expresses his or her rights, beliefs, interests, and desires as in offering an opinion, making recommendations, making a request, disagreeing, or interrupting. Examples:

I would like to see if it gets any worse before I think about surgery.

Could I have a note for my employer?

Before I go, there's one other thing I want to talk about.

That's not what I want to do. I'd rather just get a refill of my prescription.

## Physicians' Facilitative Behaviors

### A. Partnership-Building

Utterances that solicit, encourage, or affirm patients' efforts to express their opinions, ask questions, talk about their feelings, and participate in decision-making. Examples:

What do you think about that?

Is surgery something you would like to consider?

Sure, I'd be happy to. (in response to a patient's request)

Tell me more about that.

### B. Supportive Talk

Verbal behaviors that validate or support the patient's emotional or motivational state. Examples:

That must be very hard on you and your family.

Congratulations on losing 10 pounds!

It'll be OK. Don't worry.

You're doing a great job, Mr. Jones. Keep up the good work.

## Prompted Versus Self-Initiated Patient Participation

### A. Prompted Patient Participation

Active participation in response to physician partnership-building and supportive talk. Examples:

Dr.: We can schedule this procedure at your convenience.

Do you have a preference? (partnership-building)

Patient: I'd like to do it next Thursday. (prompted assertiveness)

Dr.: That must've really upset you. (supportive talk)

Patient: Yes, I was so worried I couldn't sleep. (prompted expression of concern)

Dr.: Do you have any questions? (partnership-building)

Patient: Yes, does this medication have any side effects? (prompted question)

### B. Self-Initiated Patient Participation

Active participation that was not preceded by physician partnership-building or supportive talk in the previous conversational turn.