Patients' Desires and Satisfaction in General Medicine Clinics

SANDRA K. JOOS, MPH, PhD
DAVID H. HICKAM, MD, MPH
LAURA M. BORDERS, MN

Dr. Joos is with the Health Services Research and Development Program (HSRD) of the Portland Veterans Affairs Medical Center (VAMC). She is an Assistant Professor in the Department of Medicine, Oregon Health Sciences University (OHSU). Dr. Hickam is Staff Physician, Section of General Medicine, VAMC, and Associate Professor, Department of Medicine, OHSU. Ms. Borders was a Research Assistant and Student Intern, HSRD.

The research was supported by the Department of Veterans Affairs, HSRD Program.

Tearsheet requests to Sandra K. Joos, MPH, PhD; Department of Veterans Affairs, P.O. Box 1034, Portland, OR 97207; tel. (503) 273-5305; fax (503) 273-5367.

Synopsis

Most patients have explicit desires or requests when they visit their physicians. Identification of patients' requests and needs is the starting point of a patient-centered approach to care. The frequency with which physicians met their patients' desires for services and that frequency's association with patient satisfaction were examined for 243 patients with chronic disease in general medicine clinics of a Department of Veterans Affairs hospital.

Patients desired a mean of 11.9 services, of which an average of 67 percent were met. However, many patients' desires for information and most of their desires for help with emotional and family problems were not met. Patients with the most unmet desires for services, especially services related to information, were significantly less satisfied with their physicians than were those with fewer unmet desires. Factor analysis was used to develop a short, 16-item Requests for Services Questionnaire that appeared to cover the range of services that patients with chronic conditions desire.

Enhancing physicians' ability to recognize and respond to patients' desires for services by using short patient request questionnaires may have the potential to improve patient satisfaction and other health care outcomes.

ALMOST ALL PATIENTS have explicit desires or requests for services when they visit their physicians. They include desires for information, tests, treatment, psychosocial assistance, or simply that the physician listen to their concerns. Eliciting, negotiating, and fulfilling patient requests is associated with patients' satisfaction (*1–7*), compliance (*2, 7*), and improvement in symptoms, perceived health status, and physiologic outcomes (*2, 7, 8*).

One way of eliciting patients' desires for assistance is by use of a self-administered requests questionnaire that outpatients may fill out while waiting to see the physician. Questionnaires of this type have been developed to describe the requests of patients in psychiatry (*9, 10*) and in primary care outpatient settings (*11, 12*). However, those questionnaires were either lengthy (50 or more items) or developed in walk-in settings where most patients wanted care for acute problems. If requests questionnaires are to be feasible for providers to use in settings such as clinics offering continuity of care, they must be short and include items that reflect the needs of patients with chronic conditions.

We conducted a study with four main purposes: to identify what kinds of services and assistance patients with chronic diseases desire, to determine how often patients received those services, to determine if characteristics of patients or physicians are related to the number and type of services that patients desire and receive, and to examine whether receiving the services they desired was related to patients' satisfaction with their physicians. We used the findings to develop a short 16-item requests questionnaire for physicians and other providers to use in clinical settings. The requests questionnaire may be practical for use in identifying and responding to patients' desires for services.

Methods

The study was conducted in the general medicine outpatient clinics of an urban, university-affiliated Veterans Affairs hospital. The hospital provides outpatient and inpatient care in an integrated fashion to veterans of military service. The general

Abbreviated Patient Request for Services Schedule

(Numbers in parentheses refer to item numbers in table 1 from which items for the abbreviated version were derived)

I had some tests done and I would like to find out my test results. (6)
I want the doctor to prescribe medications or refills for me. (1)
I would like the doctor to write a letter or fill out some forms for me. (29)
I want something to be done to relieve my physical discomfort or symptoms. (8)
I would like to be referred to a specialist or other doctor for treatment of my problem. (22)
I want the doctor to do something or have some tests done to find out what's wrong. (13, 15)
I would like to tell the doctor my ideas and concerns about my problem (what I think my problem might be, what I think caused it, or how it is affecting my life and family). (3, 18, 23, 25)
I would like to know more about my problem (what is the name of my problem, what caused it, what I can and can't do while I have the problem, whether it will get better or get worse). (5, 11, 14, 17)
I would like some advice about how to stay healthy (diet, exercise) or about some personal health habits (how to lose weight, stop smoking, control my drinking). (12, 26)
I want to tell the doctor about problems I'm having taking my medications on time. (28)
I would like to know more about my medications (how they work, what are the possible side effects). (7, 9)
I want to tell the doctor about side effects or problems I think are caused by my medications. (19)
I want the doctor to make some changes in my medications (type, amount, schedule). (21)
I want something to be done to relieve my emotional discomfort (nerves, stress, worry). (20)
I would like help for some personal family, marriage, or emotional problems I am having. (27, 30)
I want to talk with the doctor about increasing or decreasing how often I come to the clinic. (24)

medicine clinics function as continuity care clinics, in which each patient is assigned to a physician who is responsible for the primary management of the patient's medical care. Physicians in the clinics are either faculty members or internal medicine resident physicians of the Oregon Health Sciences University's Department of Medicine. Patients whose physicians are faculty members are likely to see the same physician for as long as they remain patients in the clinic. Patients of a resident physician stay with that physician for up to 3 years, or until the resident completes training. The majority of appointments in the clinics are for routine followup of chronic medical conditions, such as hypertension, diabetes, heart disease, pulmonary disease, and arthritis. Separate clinics provide urgent outpatient care.

Data were collected in clinics during a 3-month period from all patients who were taking at least one medication for a chronic problem, had seen their physician at least once before, and who had agreed to participate. No female patients were included because few were enrolled in the clinics.

All 41 care providers were physicians; 16 staff internists (1 woman, 15 men) provided care to 114 (47 percent) of the patients; 25 internal medicine resident physicians (11 women, 14 men) saw the other 129 patients. The mean number of subjects seen by each physician was 6, and ranged from 1 to 27.

A modified version of "Patient Request for Services Schedule," a questionnaire developed and validated by Like and Zyzanski (*6, 12*), was used to elicit patients' desires for assistance. The Like and Zyzanski questionnaire consists of 25 items that were found to measure 5 categories of patients' requests: desire for medical information, psychosocial assistance, therapeutic listening, general health advice, and biomedical treatment. We added six items to the questionnaire to address specific issues concerning medications and frequency of visits that could be relevant to satisfaction and compliance among patients with chronic conditions (see accompanying box).

Prior to seeing their physician, patients who were subjects indicated whether each service listed described "the type of help you would like today" and how important the service was to them on a four-point scale ranging from "not at all important" to "extremely important." An additional open-ended question allowed subjects to list any further requests that had not been included in the questionnaire.

Following the visit, subjects indicated whether or not each service was the "type of help you actually received today." They also rated their satisfaction with the personal manner, communication skills, and technical competence of their physician, using a questionnaire developed for the American Board of Internal Medicine (*13*). Information about their

Table 1. Responses to the Request for Services Questionnaire by 197 patients with chronic disease in general medicine clinics of a Department of Veterans Affairs hospital

Service	Percent desiring service	Percent receiving service	Percent desiring but not receiving service
1. Prescribe or refill my medications	81	92	2
2. Examine me	75	83	11
3. Share my ideas, feelings and concerns	74	82	9
4. Help me understand problem so I know what to do	60	67	25
5. Tell me if problem will get better or worse	60	48	46
6. Had tests done and want to find out results	55	50	36
7. Tell me about possible medication side effects	54	45	47
8. Relief for physical discomfort	53	39	46
9. Tell me how my medications work	51	65	30
10. Tell the doctor about my efforts at home	50	72	18
11. Tell me what I can and can't do while I have the problem	48	41	51
12. Advice about how to stay healthy	46	63	2
13. Want something done to find out if I have a disease	43	41	42
14. Tell me the name of my problem	43	39	56
15. Want tests done to find out what's wrong	40	41	51
16. Want to feel that someone cares about me	39	81	6
17. Tell me what caused my problem	37	33	63
18. Tell the doctor what I think problem might be	35	43	31
19. Tell the doctor about side effects caused by my medications	33	35	50
20. Relief of emotional discomfort (nerves, stress)	32	16	77
21. Change my medications (type, amount, schedule)	31	54	31
22. To be referred to a specialist	29	29	56
23. Tell the doctor what I think caused my problem	24	29	56
24. Talk to the doctor about the frequency of clinic visits	23	22	64
25. Tell the doctor how the problem affects my life and family	20	14	64
26. Advice about personal health habits	19	23	57
27. Help with personal emotional problems	16	10	73
28. Tell the doctor about problems in taking medications on time	14	21	50
29. Want the doctor to write letter or fill out form	14	18	55
30. Help for marital or family problems	6	4	83
31. Receive an injection (shot)	3	5	83

NOTE: The percentage of those who desired a service equals the number who desired the service divided by the total number of patients. The percentage of those patients whose desires were not met equals the number who desired a service, but did not receive it, divided by the number who desired the service.

age, their level of schooling, and their self-rated health status (excellent, good, fair, or poor) was collected.

Some patients did not complete all sections of the questionnaires administered before and after the visit. One hundred and ninety-seven patients (81 percent) completed both the services desired and the services received questionnaires. The satisfaction questionnaire did not become available until after data collection was initiated, and it was not administered to the first 61 patients enrolled in the study. One hundred and forty-three subjects provided complete data on all the pre- and post-visit questionnaires.

Physicians were aware that the study was being conducted, but patients' responses were not shared with physicians. Because the physician did not see the questionnaire, and patients may or may not have actually expressed their requests to their physicians, we use the terminology suggested by Uhlmann and colleagues (*14*) and refer to the services acknowledged on the questionnaire as desires for assistance rather than as requests for assistance.

Subjects were considered to have desired a service if they rated an item on the questionnaire as "a little," or "fairly," or "extremely" important to them. The number of desires met was computed by summing the number of services that were desired and received. The number of desires not met was computed by summing the number of services that were desired and not received. The percent of desires met was computed by dividing the number of desires met by the number of services desired.

We hypothesized that satisfaction would be positively associated with the number and percent of desires that were met, and that satisfaction would be negatively associated with the number of desires that were not met. The hypothesis was tested using Pearson's zero-order correlation coefficient (r). One-tailed t-tests were used to test the hypothesis that, for any individual item, patients who desired the service and received it would be more satisfied

than those who desired the service, but did not receive it. The *P*-value used to reject the null hypothesis was adjusted for the multiple comparisons by dividing the 0.05 alpha level by the number of items compared ($P = (0.05/31) = 0.0016$). One-way analyses of variance were used to examine associations between patients' characteristics and the number and types of services that they desired.

Factor analysis was used to examine the structure and categories of patients' desires and to reduce the number of items that were included in some analyses. Maximum likelihood factor extraction with varimax rotation was used to identify groups of associated items. Items having loadings of at least 0.35 were assigned to a factor. The results of the factor analyses were also used to develop a practical questionnaire that covered the range of patient desires with a minimum number of items.

Results

Study subjects. A total of 289 men were invited to participate; 16 (6 percent) were physically or cognitively unable to respond, and 30 (10 percent) declined to participate. Patients who refused or were unable to participate were significantly older ($P < 0.05$, mean age 67.5 years, SD = 9.7) than those who did participate (mean age 63 years, SD = 9.8). Of the 243 subjects, 82 percent were able to complete the previsit Requests for Services Questionnaire in less than 10 minutes, and 90 percent of the subjects completed the postvisit Services Received and Patient Satisfaction Questionnaires within 15 minutes.

Sixty-nine percent of the subjects were high school graduates, and 43 percent had attended some college or were college graduates. Sixty-five percent of the subjects judged their health status to be fair or poor; 31 percent believed that their health was good; only 4 percent claimed excellent health.

Services desired by patients and addressed by physicians. Of the 31 possible choices for assistance, patients desired an average of 11.9 services (SD = 7.5, range = 0–28). Only one person did not acknowledge a desire for any of the services. The average number of desires that were met was 7.5 (SD = 4.9, range = 1–23). The average percent of desires that were met was 67 (SD = 22, range = 14–100). Patients who desired more services reported that a smaller proportion of their desires was met ($r = -0.31$, $P < 0.001$). This relationship, however, was not strictly monotonic. The percent of desires that were met did not decline significantly until patients wanted assistance with more than four items.

Desires for prescriptions or refills, examinations, and to share ideas, feelings and concerns (items 1–3, table 1) were the most frequently mentioned and were among the most likely to be met. Desire for affective support (item 16) also was highly likely to be met, although it was mentioned less frequently. Desires for information about health problems and medications (items 4–7, 9, 11, 12, 14, 17, and 26) were frequently mentioned but often were not met; the proportion of patients who said that these types of desires were not met ranged from 25 percent (items 4 and 12) to 63 percent (item 17) of patients. Assistance for emotional, personal, or family problems (items 20, 25, 27, 30) and wanting to inform the doctor of their point of view (items 18, 19, 23, 25, 28) were among the least frequently mentioned desires and were also among the items least likely to be received by those who wanted them.

Only 41 subjects responded to the open-ended question designed to elicit desires not listed on the questionnaire. Because the responses were either elaborations of desires already noted (10 percent), expressions of satisfaction with current services (12 percent), or had to do with institutional problems such as appointment scheduling, waiting to see the physician, transportation and parking, getting prescriptions from the pharmacy, and eligibility for services (78 percent), they were not used in the computation of total number of services desired.

Categories of patients' desires. Factor analysis was used to examine the structure and categories of patients' requests and to combine items into a smaller number of categories. The analysis yielded four factors that had eigenvalues greater than or almost equal to one (table 2). The first factor explained 32 percent of the variance. The three smaller factors together explained 12 percent of the variance. The first factor, Biomedical Information and Assistance, contained 16 items whose content reflected desires for information, treatment, and telling the physician one's point of view. The second factor, Medication Regimen and Visits, reflected desires for assistance with problems related to the treatment regimen. The third factor, Psychosocial Assistance, reflected desire for assistance with personal, emotional, and family problems. The fourth factor, Medication Effects, concerned the effects of medication. Internal consistency reliability of items within the factors,

Table 2. Factor loadings of 0.35 or more for items in Requests for Services Questionnaire provided by 243 patients with chronic disease in general medicine clinics of a Department of Veterans Affairs hospital

Factor and service	Factor I	Factor II	Factor III	Factor IV
I. Biomedical Information and Treatment				
4. Help me understand my problem so I will know what to do	.72	...	...	.40
11. Tell me what I can or can't do while I have the problem	.71	...	...	...
5. Tell me if problem will get better or worse	.67	...	...	...
13. Want something done to find out if I have a disease	.66	...	...	...
17. Tell me what caused my problem	.65	...	...	...
18. Tell the doctor what I think problem might be	.62	.36	...	...
14. Tell me the name of my problem	.60	...	...	...
3. Share my ideas, feelings, and concerns	.60	...	...	...
8. Relief for physical discomfort	.58	...	...	...
22. To be referred to a specialist	.57	.41	...	...
10. Tell the doctor about my efforts at home	.53	...	...	...
12. Advice about how to stay healthy	.44	...	...	.36
2. Examine me	.44	...	...	...
16. Feel that someone cares about me	.41	...	...	...
15. Want tests done to find out what's wrong	.41	...	.35	...
23. Tell the doctor what I think caused my problem	.39	.37	...	...
II. Discuss problems with regimen				
28. Tell the doctor about problems taking medications on time	...	.70	...	...
21. Change my medications (type, amount, schedule)	...	.69	...	...
24. Talk to the doctor about frequency of clinic visits	...	.47	...	...
III. Psychosocial Assistance				
27. Help with personal emotional problems	...	...	.78	...
30. Help for marital or family problems	...	...	.65	...
25. Tell the doctor how problem affects my life and family	...	...	.50	...
20. Relief of emotional discomfort (nerves, stress)	.37		.49	...
IV. Medication Information				
9. Tell me how my medications work	...	...	...	.84
7. Tell me about possible side effects of my medications[1]	.51	...	...	.51
19. Tell the doctor about side effects caused by my medications	...	.38	...	.37
Eigenvalue	9.6	1.4	1.1	.98
Percent of variance explained by factor	32.0	4.6	3.7	3.3
Cronbach's alpha	.93	.76	.77	.79

[1] Loaded with equal weight on factors I and IV; item assigned to factor IV.

as measured by Cronbach's alpha, was good ($\geq$ 0.76) for all factors.

Patient characteristics associated with services desired and received. Neither the number of services that patients desired nor the proportion of desired services they received was significantly associated with patients' age or education. The average number of services desired by patients who rated their health status as excellent was lower (7.4) than those who described their health status as good (11.8), fair (12.0), or poor (12.7), but the difference was not statistically significant ($P = 0.08$).

While no characteristics of patient were associated with the overall number of services desired, some were associated with the desire for certain types of services. Patients younger than 50 years desired an average of 1.5 services from the Psychosocial Assistance factor (items 20, 25, 27, and 30), while those 70 years and older desired an average of only 0.3 services in this category (F (3,187) = 4.43, $P < 0.005$). Subjects who desired one or more services from the Psychosocial Assistance factor wanted more than two times as many nonpsychosocial (medical) services (mean = 16.3) as subjects who did not desire any psychosocial assistance (mean = 7.7) (F 1,165 = 81.66, $P <$ 0.0001).

Physician characteristics associated with services desired and received. The training level of physicians (residents vs. staff members) was not related to the number or proportion of services patients desired and received. Because there was only one female staff physician, differences by the sex of the physician were examined only among the resident

Table 3. Requests for Services Questionnaire items on which the mean satisfaction scores for patients whose desire was met were significantly higher than scores for patients whose desire was not met, provided by 143 patients with chronic disease in general medicine clinics of a Department of Veterans Affairs hospital

Service	Service desired and received		Service desired but not received	
	Number	Score[1]	Number	Score[1]
Tell me what caused my problem	18	4.70 ± .5	32	[2]3.91 ± .9
Help me understand my problem so I will know what to do	63	4.40 ± .7	20	[2]3.77 ± .9
Want to feel that someone cares about me	43	4.31 ± .8	4	[2]2.97 ± .9
Tell me the name of my problem	27	4.46 ± .7	33	[3]3.92 ± .9
Advice about how to stay healthy	50	4.33 ± .8	14	[4]3.74 ± 1.0
Tell me if my problem will get better or worse	45	4.42 ± .8	34	[4]4.05 ± .8
Tell me how my medications work	53	4.39 ± .7	21	[4]3.98 ± .9
Had tests done and want to find out the results	49	4.37 ± .7	29	[4]4.00 ± .9
Tell me about possible side effects of my medications	43	4.39 ± .7	35	[4]4.14 ± .8
Change my medications (type, amount, schedule)	26	4.27 ± .8	11	[4]3.80 ± .7

[1] Mean of satisfaction score ± standard deviation. [2] $P \leq 0.0016$. [3] $P \leq 0.01$. [4] $P \leq 0.05$. NOTE: P values by one-tail t-test.

physicians. The number of services desired by patients of male and female residents did not differ. However, the number and proportion of patients' desires for psychosocial assistance that were received was significantly higher among patients of female than male residents. The mean number of requests for psychosocial assistance that was addressed by male vs. female physicians was 0.12 vs. 0.32 ($P = 0.02$), and the mean proportion that was addressed was 0.17 vs. 0.36 ($P = 0.05$).

Patient satisfaction and desires. Patient satisfaction was high in this population; the mean was 4.26 (SD = 0.78) out of a possible score of 5.0. Patients who reported excellent health were more satisfied with their physicians than patients who reported poor, fair, or good health. Because of the small number with excellent health, this finding was not statistically significant ($F = 2.45$ (3,153), $P = 0.07$). Factors not found to be associated with patients' satisfaction were their age and educational attainment, and the physician's training and sex.

Patient satisfaction was positively, but not significantly, correlated with the number of services received ($r = 0.14$) and with the total number of desires that were met ($r = 0.07$). However, satisfaction was significantly and positively correlated with the percent of desires that were met ($r = 0.25$, $P < 0.002$) and was negatively correlated with the number of desires that were not met ($r = -0.28$, $P < 0.001$). Patient satisfaction also was negatively correlated with numbers of unmet desires for assistance on each of the factor subscales, but the correlation was significant only between satisfaction and the number of unmet desires on the Biomedical Information and Treatment factor ($r = -0.35$, $P < 0.002$). The correlations between satisfaction and the number of unmet desires on the other subscales were negative, ranging from -0.13 to -0.16, but were not significant.

To determine if patients' satisfaction was associated with failing to receive any particular item desired, we compared mean satisfaction scores of patients who wanted an item and said that they had received it with those who desired an item and said that they had not received it. For all but one item, mean satisfaction scores were higher if the desired service was received than if it was not. For three items ("want to know what caused my problem", "want to understand problem so I know what to do," and "want to feel that someone cares about me"), the difference was statistically significant at the level of $P < 0.0016$ (table 3). For seven other items the difference was significant at the level of $P \leq 0.05$.

Modification of the requests questionnaire. Results of the descriptive and factor analyses were used in creating an abbreviated requests for services questionnaire. By dropping items that were almost always met or were infrequently desired and by combining items that were highly correlated, we reduced the total number of items on the requests questionnaire from 31 to 16 (see box). Numbers of services desired and met were recomputed for the shortened questionnaire, and the analyses were repeated. The mean number of desires for services was reduced to 6.3 (range 0–15; SD = 3.9). Only two subjects would not have acknowledged a desire for any of the services on the abbreviated questionnaire, which suggests that the scope of service choices is still adequate. Factor analyses of the data from the abbreviated questionnaire produced the same categories as the original analysis. The ex-

pected associations between patient satisfaction and desire fulfillment were maintained: satisfaction was inversely correlated with the percent of desires not met ($r = -0.34$, $P < 0.001$) and with the total number of desires not met ($r = -0.32$, $P < 0.001$).

Discussion

Evaluation of patients' desires provides valuable information about the nature of primary health care. We found that the content of a relatively short requests for services questionnaire covered most of the types of care desired by patients attending outpatient general medicine clinics in a Veterans Affairs hospital. The only type of service that was elicited by the open-ended question, but not covered by the questionnaire, was for assistance with administrative and organizational problems. Those services usually are more appropriately provided by persons other than physicians.

The numbers of services desired by the male veteran patients were compared with those desired by patients in a previous study that was conducted in a university walk-in clinic (*12*). Although the male veteran patients were older, had poorer health status, and completed a questionnaire with more items than the more diverse university clinic subjects, they desired the same number of services. However, although veteran patients did not desire an excessive number of services, the number of desires elicited, using a structured questionnaire of this type, may be difficult to address in a clinical setting. We found that the percent of desires that were met declined significantly when patients wanted assistance with more than four items. Because many of the items are similar in content (they have to do with need for information about medications, the condition, or its expected course), the number of separate services desired may be more apparent than real. Desires for many of the services were related, and their content was such that they could be combined to reduce the number of items on the questionnaire by half.

The content of categories into which our patients' desires could be grouped differed somewhat from those found by Like and Zyzanski (*12*). Items that formed separate Medical Information, Therapeutic Listening, General Health Advice, and Biomedical Treatment factors in their study all loaded on a single factor in our population that we labeled Biomedical Information and Assistance. Apparently, the types of assistance desired by veterans with chronic problems in continuity care clinics are more intercorrelated and not as discrete when compared with university walk-in clinic patients, who mostly had acute problems. However, our Psychosocial Assistance factor corresponded almost exactly to that of Like and Zyzanski. The second and fourth factors that emerged in our analysis were comprised of the six items we added to Like and Zyzanski's questionnaire to address concerns related to visit frequency and long-term medication use for chronic conditions. The frequency with which these six items were desired indicates their importance in this population.

'Increased patient satisfaction is an appropriate goal for providers of continuity care to patients with chronic health problems. Patients who are more satisfied with their care are also more likely to comply with treatment and self-care recommendations.'

As has been observed with other patient populations (*7, 11, 12*), veterans most frequently desired information and assistance with biomedical problems and their management and with medications. Requests for psychosocial assistance were expressed infrequently and usually were not met. Although female resident physicians addressed more of their patients' desires for psychosocial assistance than did male residents, they still left unmet a large proportion of patients' desires for this type of assistance. Physicians may avoid discussion of psychosocial problems because they feel ill-equipped to address their patients' social and psychological needs. However, physicians also may overestimate the extent to which their patients expect help. Frowick and coworkers (*15*) found that, while many patients said they would want their physicians to assist them with psychosocial problems, the type of assistance they desired was at the level of "referral" or "some help and concern"; they did not expect "expert help" from their physicians for those problems.

The finding that women physicians were more likely to address patients' psychosocial concerns is consistent with findings reported by others. Wasserman and coworkers (*16*) found women pediatricians were more responsive to and supportive of patients than were men pediatricians. Roter and coworkers (*17*) found that exchanges between primary care women physicians and their patients

contained more talk that was socioemotional in nature and that both parties asked more questions and gave more information, both biomedical and psychosocial, than was true of visits between men physicians and their patients. However, we are unable to determine from our data whether women physicians were more adept at eliciting patients' psychosocial concerns than men physicians, whether patients were more willing to disclose or volunteer psychosocial concerns to women than to men physicians, or whether some combination of the two processes occurred.

Even though most of the patients in our study had been seen on numerous occasions for chronic problems for which they took medications on a daily basis, many of them expressed a desire for basic information about their disease conditions and medications, and a large proportion of them did not receive it. This finding is consistent with those of other researchers, who have observed that physicians' information-giving behavior is often inadequate, even concerning such basic issues as the disease condition and medications (*18*). When patients do receive this information from physicians, they often do not understand or remember much of it (*19*). Our findings suggest that even when patients have lived with chronic problems for many years, they still may have many questions and concerns about these problems. Physicians may not know when their patients want further information (*20*), and we did not find any patient characteristic such as age, education, or health status that predicted their desire for information. The majority of patients, regardless of their age, health status or education, wanted more information than they received. A requests questionnaire may allow patients to articulate their need for information and assistance, and it could serve as a prompt to the physician to provide these services.

The younger patients in this study were more likely than the older patients to desire psychosocial assistance. It may be that young veterans have more psychological and social needs than older veterans, or they simply are more willing to disclose them. Desire for psychosocial assistance, in turn, was strongly associated with the total number of all services desired. This finding is consistent with studies that have found that patients with psychosocial and mental health problems utilize more general medical services (*21, 22*). Patients with psychosocial needs may make greater demands on providers, and the health care system in general, unless their needs are addressed.

Patient satisfaction was associated with the percent of desires that were met and with the number of desires which were not met. While the relationship between patient satisfaction and meeting desires was modest, it was consistent with what has been reported in previous studies (*1–6*) using different satisfaction measures and patient populations. Because all studies, including ours, have found little variation in physician-specific patient satisfaction measures, the size of the correlation that can be obtained is restricted. Analyses of individual service items indicated that satisfaction was always lower when the desired service was not received (table 3). In particular, we found that patient satisfaction was more strongly related to whether the physician met desires for information and affective support than whether the physician met desires for examinations, tests, and medications. This finding corresponds with that of other research in which patient satisfaction is consistently higher when providers give information and show concern (*1, 23*). We did not find, as others (*23*) have, that satisfaction was significantly related to whether desires for psychosocial assistance were addressed. Even though satisfaction was higher when desires for psychosocial assistance were met, we had little power to detect a statistically significant effect since desires for psychosocial assistance were so infrequently expressed.

Increased patient satisfaction is an appropriate goal for providers of continuity care to patients with chronic health problems. Patients who are more satisfied with their care are also more likely to comply with treatment and self-care recommendations. While other investigators (*1, 6*) have found that fulfilling patients' desires for services increased their satisfaction, their findings do not provide the basis for a practical tool to use with patients receiving continuity care. We used our findings to develop a questionnaire that may facilitate communication regarding patients' desires.

The new questionnaire is shorter and more feasible for providers and patients to use in a clinic setting than those reported by others (*10–12*). Furthermore, unlike the questionnaire used by Brody and coworkers (*1*), it includes items that are of concern to patients with chronic diseases. We have validated that the item content is sufficiently diverse to cover the range of services that patients with chronic conditions may desire.

A patient requests questionnaire may be a helpful clinical tool that has the potential to improve some health care outcomes. In particular, our findings suggest that identifying and responding to patients' information needs may improve their

satisfaction with care. Employing a questionnaire to elicit patients' desires for care may help providers identify patients who want additional information and to target their efforts to the most relevant areas. Assessments of how such questionnaires can be applied and implemented in clinical settings, as well as evaluation of their effects upon other outcomes of care, such as compliance and health status, remain to be done.

References

1. Brody, D., et al.: The relationship between patients' satisfaction with their physicians and perceptions about interventions they desired and received. Med Care 227: 1027–1035 (1989).
2. Eisenthal, S., Emery, R., Lazare, A., and Udin, H.: 'Adherence' and the negotiated approach to patienthood. Arch Gen Psychiat 36: 393–398 (1979).
3. Eisenthal, S., Koopman, C., and Lazare, A.: Process analysis of two dimensions of the negotiated approach in relation to satisfaction in the initial interview. J Nerv Ment Dis 171: 49–54 (1983).
4. Korsch, B. M., Gozzi, E. K., and Francis, V.: Gaps in doctor-patient communication. I. Doctor-patient interaction and patient satisfaction. Pediatrics 42: 855–871 (1968).
5. Lazare, A., Eisenthal, S., and Wasserman, L.: The customer approach to patienthood: attending to patient requests in a walk-in clinic. Arch Gen Psychiatry 32: 553–558 (1975).
6. Like, R., and Zyzanski, S. J.: Patient satisfaction with the clinical encounter: social psychological determinants. Soc Sci Med 24: 351–357 (1987).
7. Ulhmann, R. F., Inui, T. S., Pecoraro, R. E., and Carter, W.: Relationship of patient request fulfillment to compliance, glycemic control, and other health care outcomes in insulin-dependent diabetes. J Gen Intern Med 3: 458–463 (1988).
8. Eisenthal, S., and Lazare, A.: Evaluation of the initial interview in a walk-in clinic: the patient's perspective on a "customer approach." J Nerv Ment Dis 162: 169–176 (1976).
9. Lazare, A., and Eisenthal, S.: A negotiated approach to the clinical encounter. I. Attending to the patient's perspective. *In* Outpatient psychiatry: diagnosis and treatment, edited by A. Lazare. Williams and Wilkins, Baltimore, MD, 1979, pp. 141–145.
10. Lazare, A., and Eisenthal, S.: Patient requests in a walk-in clinic: replication of factor analysis in an independent sample. J Nerv Ment Dis 165: 330–340 (1977).
11. Del Vecchio-Good, M. J., Good, B. J., and Nassi, A. J.: Patient requests in primary health care settings: development and validation of a research instrument. J Behav Med 6: 151–168 (1983).
12. Like, R., and Zyzanski, S. J.: Patient requests in family practice: a focal point for clinical negotiations. Fam Pract 3: 216–228 (1986).
13. Carter, W., and Inui, T.: How patients judge the humanistic skills of their physicians. Final report on the Patient Satisfaction Questionnaire Project. American Board of Internal Medicine, Philadelphia, PA, 1988.
14. Uhlmann, R., Inui, T., and Carter, W.: Patient requests and expectations: definitions and clinical applications. Med Care 22: 681–685 (1984).
15. Frowick, B., Shank, C., Doherty, W. J., and Powell, T.: What do patients really want? Redefining a behavioral science curriculum for family physicians. J Fam Pract 23: 141–146 (1986).
16. Wasserman, R. C., et al.: Responsiveness to maternal concern in preventive child health visits: an analysis of clinician-patient interactions. Develop Behav Ped 4: 171–176 (1983).
17. Roter, D., Lipkin, M., and Korsgaard, A.: Sex differences in patients' and physicians' communication during primary care medical visits. Med Care 29: 1083–1093 (1991).
18. Duffy, D. L., Hamerman, D., and Cohen, M. A.: Communication skills of house officers: a study in a medical clinic. Ann Intern Med 93: 354–357 (1980).
19. Ley, P.: Patients' understanding and recall in clinical communication failure. *In* Doctor-patient communication, edited by D. Pendleton and J. Hasler. Academic Press, London, England, 1983, pp. 89–107.
20. Strull, W. M., Lo, B., and Charles, G.: Do patients want to participate in medical decision-making? JAMA 252: 2990–2994, Dec. 7, 1984.
21. Kessler, L. G., Steinwachs, D. M., and Hankin, J. R.: Episodes of psychiatric care and medical utilization. Med Care 20: 1209–1221 (1982).
22. McFarland, B. H., Freeborn, D. K., Mullooly, J. P., and Pope, C. R.: Utilization patterns among long-term enrollees in a prepaid group practice health maintenance organization. Med Care 23: 1221–1233 (1985).
23. Hall, J. A., Roter, D. L., and Katz, N. R.: Meta-analysis of correlates of provider behavior in medical encounters. Med Care 26: 657–675 (1988).