

Patient Satisfaction With Family Physicians and General Internists: Is There a Difference?

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Although general internists and family physicians see similar types of patients, they have been found to have different styles of practice. It is not known whether these differences in practice style are associated with differences in outcomes of care such as patient satisfaction. This study examined whether patients of family physicians and general internists have different perceptions of the care they receive. National samples of recently trained family physicians and general internists were asked to complete questionnaires about their practices and to record information on all patient encounters during a three-day period. Three patients were randomly sampled from among those seen by each physician during the study period and were sent questionnaires that included questions about their satisfaction with the medical care they were receiving from the physician. Two hundred thirteen adult patients who saw 124 family physicians and 218 adult patients who saw 98 general internists participated in this study. Patients of general internists and of family physicians reported similar levels of satisfaction on all four dimensions measured (access, humaneness, quality, and general satisfaction) even after controlling for the effects of a variety of patient, practice, physician, and encounter characteristics. It is concluded that the fundamental differences in practice style that have been reported between family physicians and general internists do not seem to be associated with differences in patient satisfaction.

Most adult Americans receive their primary medical care from physicians trained in general practice, family practice, or general internal medicine.¹ Recent studies have found that although both residency-trained family physicians and general internists provide first-contact care for over 90 percent of their patients and generally see similar types of adult patients, they differ in terms of their styles of practice. Most notably, family physicians are more likely than general internists to practice on Saturday mornings, to accept walk-in patients, and to schedule appointments for new patients within one week,² while general internists spend more time with patients and are more likely to order tests.³ While some of these differences in the practice styles of family physicians and general internists may have implications for the cost of care, it is

not clear what effect they have on the outcomes of care as measured by patient satisfaction or health status. This paper examines the relationship between the type of primary care physician training and patient satisfaction.

RELEVANT LITERATURE

No published studies could be found that compare the satisfaction of patients receiving their care from residency-trained family physicians with that of patients receiving care from general internists. A study comparing the satisfaction of patients with general practitioners and internal medicine specialists found that adult patients were more satisfied with the "humaneness and the quality" of the care provided by internists and with the waiting time to see the physician.⁴ No significant differences in patient satisfaction were noted for appointment wait time, time and cost to travel to the physician's office, or out-of-pocket costs for medical care. There are several factors that limit the current value of these results. First, the study was conducted before more than a handful of the new residency-trained family physicians had entered practice. Since by

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1990 most family physicians and general practitioners will be residency trained,⁵ and since noteworthy differences have been reported between the practice styles of family physicians and general practitioners,^{5,6} future studies need to focus on family physicians who have completed residency training.

A second limitation of the previous study was the inclusion of subspecialists in the group of internal medicine specialists, which resulted in a comparison of physicians who had different roles (primary care vs specialty care) and whose patients might therefore be expected to differ in a number of important respects. Finally, no adjustment was made in the analyses for differences in the characteristics of the patients (eg, age) or of the physicians' practices (eg, urban vs rural) that might be related to both physician specialty and patient satisfaction. For example, internists see older adult patients than do family physicians,² and older patients have been found to be more satisfied with their medical care.⁷

Patient satisfaction has been found to be positively associated with having a physician who spends more time with the patient and who is more available during evenings and weekends.^{4,7} The receipt of a diagnostic test has also been found to lead to increased patient satisfaction.⁸⁻¹⁰ Based on these studies, one might expect patients of family physicians to be more satisfied with their access to care and patients of general internists to be more satisfied with the resource intensiveness of their care. This study examines whether patients of recently trained family physicians and general internists in fact have different perceptions of the care they receive.

METHODS

The data used in this study come from the Physician Practice Study (PPS) of the practice characteristics of recent graduates of family practice and internal medicine training programs.¹¹ National samples of family physicians and general internists who had been in residency training during the 1976-77 academic year were selected for study. General internists were selected randomly from the graduates of this cohort of residents, while family physicians were drawn from graduates of 20 residency programs in seven states across the country. Despite the non-random nature of the family physician sample, it was found to be generally representative of all family physicians in this residency cohort.²

Approximately 70 percent of the 257 eligible family physicians and 258 eligible general internists in the PPS completed questionnaires that included questions about their training and practice characteristics. Eighty-four percent of the family physicians and 72 percent of the general internists who completed the questionnaire also

provided encounter data on each of the patients they saw during an assigned three-day period in the fall of 1981. An unknown percentage of the physicians who did not complete the log-diary did not see patients during the assigned period, practiced only in the emergency room, only treated patients for kidney dialysis, or only saw patients in the course of supervising house staff.¹¹ Three patients seen in outpatient settings were selected randomly by PPS staff from among those seen by each study physician during the assigned three-day data collection period. Patients who the physician felt were not "medically able to participate" in the study (18 percent of adult patients seen by family physicians and 30 percent of adult patients seen by general internists) were excluded. The higher exclusion rate by general internists could not be explained by differences in a broad range of variables that included patient age, sex, race, physician-assessed functional status, physician's practice arrangement, practice location, and visit location. The design of the PPS has been described in more detail elsewhere.^{2,11}

Survey Instrument

Patients were asked to complete a self-administered questionnaire that included questions about their demographic characteristics, their health and functional status, their visit with the physician that resulted in their eligibility for selection into the study (henceforth referred to as the index visit), and their overall experiences with the physician, including their satisfaction with specific aspects of the medical care they had received from the physician. The 18 satisfaction questions included in the questionnaire were a subset of the 43 questions in the Patient Satisfaction Questionnaire¹²⁻¹⁴ and included both of the items in the Access to Care subscale, 6 of the 8 items in the Humanness scale, 6 of the 9 items in the Quality/Competence subscale, and all 4 items in the General Satisfaction scale (Appendix).

The wording of the Patient Satisfaction Questionnaire questions was altered slightly so that the questions referred to the care patients had received from a particular physician as opposed to care from physicians in general. Snyder and Ware¹⁵ have shown that, although responses to questions with a personal referent were consistently more skewed than responses to those with a general referent, there were no differences in reliability or validity between the two types of items, their correlation was substantial, and their correlations with outcome measures were very similar.

Response categories to the statements of opinion presented to patients were strongly agree, agree, not sure, disagree, and strongly disagree. These responses were assigned values of 1 to 5 on a Likert scale. Equal numbers of favorably and unfavorably worded items were used to

control for bias resulting from the possible tendencies of some patients to circle the same numerical response to all questions.

Patients were sent questionnaires about one month after the index physician visit. Sixty-eight percent of the patients of family physicians and 74 percent of the patients of general internists who were sent questionnaires completed and returned them after the single mailing. Patients who responded were found to be generally representative of the population of patients that physicians considered medically able to participate in the study. Of the 26 patient, physician, and encounter variables examined, differences in the characteristics of respondents and eligible patients were noted for only three. Male patients of internists, patients receiving care from office-based internists, and patients receiving care from physicians of both specialties who had high patient volumes were found to be underrepresented among patients responding to the questionnaire. Because none of these variables were found to be related to satisfaction, it is unlikely that the underrepresentation of patients with these characteristics would significantly affect the results of this study.

Inter-item reliability of the questions in the present study was found to be high for three of the four scales with Cronbach's alphas of 0.81 for the Humaneness scale, 0.69 for the Quality scale, 0.84 for the General Satisfaction scale, and 0.47 for the Access scale. Since the size of alpha increases with the number of items in the scale, it is not surprising that the inter-item reliability for the two-item Access scale is lower than for the others.¹⁴ More important, the reliability of all but one of the four scales substantially exceeded the 0.50 standard of acceptability adopted by Ware and others for group comparisons.^{14,16} Further documentation of the reliability and stability of Patient Satisfaction Questionnaire scales and subscales have been reported by Ware et al.¹⁷ Empirical evidence supporting the validity of these satisfaction measures has also been reported.^{14,17,18}

Analysis

Responses to favorably and unfavorably worded items were recorded so that a higher number indicated a more favorable evaluation of medical care. Scale scores were created by summing values of items within each scale without differential weighting. Pearson correlations among the Humaneness, Quality, and General Satisfaction scale scores ranged from 0.67 to 0.75. The correlations between the Access scale score and the other scale score ranged between 0.48 and 0.54.

Mean scale scores were compared for patients of family physicians and general internists using Student's *t* tests with *P* values of less than .05 considered statistically significant. Ordinary least squares multiple regression was

used to control for differences in patient, practice, physician, and encounter characteristics that might be responsible for any observed differences in patient satisfaction with physicians in the two specialties and to identify other factors that were associated with patient satisfaction. An analysis of covariance was performed to determine whether the interaction terms between physician specialty and the other independent variables in the regression equations were statistically significant. Because the inclusion of interaction terms did not significantly contribute to the explanatory power of the regressions, no interaction terms are included in the analyses presented in this paper.

Analyses were restricted to patients who were over 16 years of age because general internists rarely see children. Thus the analyses described in this paper are based on the responses of 213 adult patients who saw 124 family physicians and 218 adult patients who saw 98 general internists. Some physicians had as many as three of their patients included in this study, though most physicians in both specialties had only one or two patients included. To determine whether the inclusion of multiple patients per physician could have biased the results, analyses were repeated using only one patient selected randomly for each physician. Because this restriction did not materially alter the findings, only the results of the unrestricted analysis are presented.

RESULTS

Patient, Physician, and Encounter Characteristics

Compared with patients of general internists, the patients of family physicians were younger, healthier, and more highly educated (Table 1). These differences reflect differences inherent in the age composition of the practices of family physicians and general internists that have been reported previously.² No differences in the two groups of patients were noted in terms of sex, ethnicity, income, or health insurance coverage.

The family physicians and general internists seen by patients in this study were similar in terms of their demographic characteristics, duration in practice, and likelihood of being on salary (Table 1). The general internists, however, were less likely to be in office-based practice and more likely to be in solo, multispecialty group, and urban practices. There were also significant differences in the regional distribution of the practices, largely the result of the differences in the sampling methods used for the two specialties (see Methods). The proportion of visits that were first visits to the physician or that were for consultations requested by other physicians was similar for patients of both specialties, as was the proportion of patients who considered the physician to be their usual physician.

TABLE 1. CHARACTERISTICS OF THE PATIENTS PARTICIPATING IN THE STUDY AND THEIR PHYSICIANS

Characteristics	Patients of Family Physicians (n = 213)	Patients of General Internists (n = 218)	P value (chi-square unless otherwise noted)
Patient characteristics*			
Age in years (mean)	40.5	53.3	<.0001**
Female (%)	71.8	65.1	.164
White, non-Hispanic (%)	90.6	85.3	.124
Education			.001
Some high school or less (%)	18.9	31.3	
High school graduate through some college (%)	58.5	47.9	
College graduate or more (%)	22.6	20.7	
Income			.7671
None through \$9,999 (%)	29.1	31.3	
\$10,000 through \$19,999 (%)	28.6	29.9	
\$20,000 or more (%)	42.3	38.8	
Health status			<.001
Fair and poor (%)	19.0	39.7	
Good (%)	54.8	50.0	
Excellent (%)	26.2	10.3	
Functional status			<.001
Confined to house, walk 1 block outdoors (%)	6.6	15.6	
Walk 4 blocks outdoors, climb 2 flights of stairs (%)	24.4	45.9	
Run 50 yards, run 1 mile or do vigorous sports (%)	69.0	38.5	
Physician characteristics***†			
Age in years (mean)	33.1	33.6	.071**
Female (%)	12.2	9.8	.514
Months in current practice location (mean)	31.4	30.2	.380*
Office-based practice (%)	85.0	72.9	.003
Salaried practice (%)	27.1	25.2	.734
Practice arrangement			<.001
Solo (%)	12.2	27.0	
Single-specialty group (%)	57.3	30.2	
Multispecialty group (%)	19.2	28.8	
Other (%)	11.3	14.0	
Region			<.001
Northeast (%)	5.6	21.9	
North Central (%)	32.9	26.5	
South (%)	2.3	26.5	
West (%)	59.2	25.1	
Rural location (%)	26.9	21.4	<.001
Encounter characteristics*			
Patient self-pay for visit (%)	31.9	31.3	.978
First patient-physician encounter (%)	19.2	20.2	.902
Consult for another physician (%)	2.8	6.5	.121
Usual physician (I see this doctor just about every time I go for medical care):			.996
Strongly disagree, disagree, not sure (%)	22.2	21.9	
Agree	41.2	41.7	
Strongly agree (%)	36.6	36.4	

* Patient-reported data

** t test.

*** Physician-reported data

† The unit of analysis is the patient encounter, and since some physicians had as many as three patient encounters, the statistical significance of comparisons between the two specialties may be slightly biased

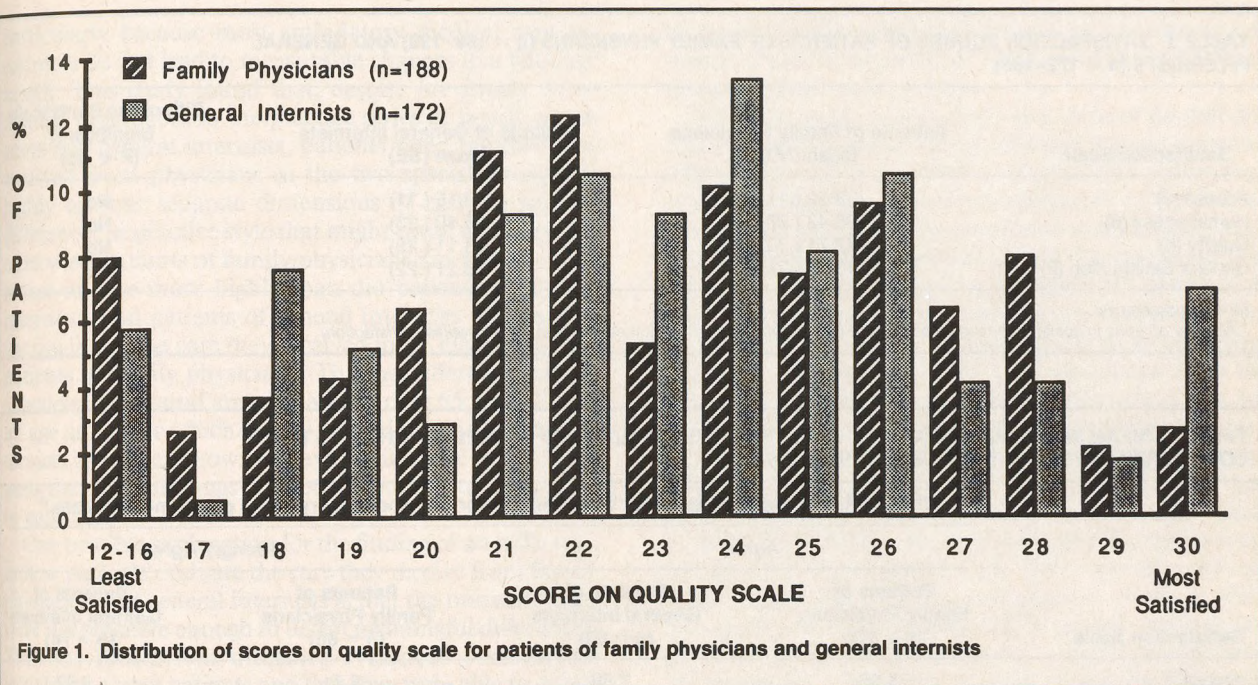


Figure 1. Distribution of scores on quality scale for patients of family physicians and general internists

TABLE 2. PERCENTAGE OF PATIENTS NOT SATISFIED* WITH THEIR CARE BY SPECIALTY OF PHYSICIAN PROVIDING THE CARE

Dimension of Care	Family Physicians		General Internists		Difference Statistically Significant? (P < .05)
	Percent	(n)	Percent	(n)	
Access	13.6	(198)	14.7	(192)	No
Humaneness	5.1	(195)	1.6	(184)	No
Quality	14.4	(188)	14.0	(172)	No
General Satisfaction	13.3	(195)	13.1	(183)	No

* Not satisfied is defined as having an average scale score of 3 or less per item in the scale where 1 is least satisfied and 5 is most satisfied

The following analyses were carried out to describe the relationship between physician specialty and patient satisfaction and to determine to what extent it can be explained by differences in the characteristics of the patients of physicians noted in Table 1.

Comparison of Satisfaction Scores

An example of the distributions of the satisfaction scores for patients of family physicians and general internists is illustrated in Figure 1. The distributions for the two specialties were similar for all four measures of satisfaction. While the distributions were positively skewed on three of the four scales (Access, Humaneness, General Satisfaction), they all illustrated a considerable amount of variability in satisfaction scores among patients of both

specialties. The percentages of patients whose average scale scores were no higher than neutral (ie, that were 3 or less on a scale of 1 to 5) are presented in Table 2. The percentage of patients who were not satisfied on each the four dimensions of care was similar for the two specialties. About 14 percent of patients were not satisfied with access, quality, and general satisfaction while 2 to 5 percent were not satisfied with the humaneness of the care they received from their physician.

Not surprisingly, when the mean scale scores for each specialty were compared (Table 3), no statistically significant differences were found. These findings were consistent for young, middle-aged, and older adults. When responses to the 18 individual questions that comprise the scales were examined, a significant difference was noted for only one, a finding that one might have expected by

TABLE 3. SATISFACTION SCORES OF PATIENTS OF FAMILY PHYSICIANS (n = 188-198) AND GENERAL INTERNISTS (n = 172-192)

Satisfaction Scale	Patients of Family Physicians Mean (SE)	Patients of General Internists Mean (SE)	Difference Statistically Significant? (P < .05)
Access (2)*	8.22 (.11)	8.15 (.11)	No
Humaneness (6)	26.43 (.26)	26.40 (.23)	No
Quality (6)	22.71 (.30)	23.11 (.29)	No
General Satisfaction (2)	15.98 (.24)	16.21 (.22)	No

SE—standard error

* Number of items in scale, with responses to each item ranging from 1 (lowest satisfaction) to 5 (greatest satisfaction)

TABLE 4. MEAN SATISFACTION SCORES BY PHYSICIAN SPECIALTY AND DEGREE TO WHICH PATIENTS CONSIDERED PHYSICIAN THEIR USUAL PHYSICIAN

Satisfaction Scale	Patient Response to Statement: "I see this doctor just about every time I go for medical care."			
	Agree		Strongly Agree	
	Patients of Family Physicians (n = 70)	Patients of General Internists (n = 63)	Patients of Family Physicians (n = 80)	Patients of General Internists (n = 74)
Access	8.05	7.88	8.71	8.97
Humaneness	25.86	25.73	28.11	28.17
Quality	22.03	22.61	25.15	25.28
General Satisfaction	15.40	14.75	17.51	17.90

Note: None of the differences between the specialties within the response levels were statistically significant (ie, P > .05), while all of the differences between response levels within each specialty were statistically significant

chance alone using a criterion of 0.05 for statistical significance.

Effect of Controlling for the Effects of Other Factors

Controlling for the simultaneous effects of all of the variables listed in Table 1 did not change the finding of no significant relationship between physician specialty and the four dimensions of patient satisfaction. Some patient, practice, and physician-patient relationship variables, however, were found to be significant predictors of patient satisfaction. The only variable that was consistently associated with increased patient satisfaction was the patient's agreement with the statement, "I see this doctor just about every time I go for medical care." Patients who claimed the physician was their usual physician were substantially more satisfied with all four dimensions of their care.

Nonwhite patients were significantly less satisfied with their access to care than white patients. Living in the Northeast was associated with greater satisfaction with the quality of care, while not being a college graduate and

being in excellent or good health were associated with greater general satisfaction with care. With the exception of the usual physician variable mentioned above, no variables were associated with increased satisfaction with the humaneness of the physician.

Compared with patients who only "agreed" that the physician was their usual physician, patients who "strongly agreed" were significantly more satisfied with their care on all four measures (Table 4). This finding was equally true for patients of family physicians and general internists. Within each of the response categories (ie, agree and strongly agree) there were no significant differences in patient satisfaction with family physicians and general internists. Patients who were not sure or who disagreed that the physician was their usual physician tended to be least satisfied (not shown in table), though the greatest difference in satisfaction was between the two agree categories.

DISCUSSION

Patients' perceptions of the medical care they receive must be considered an important measure of outcome.

particularly because most ambulatory medical care encounters do not lead to measurable changes in a patients' health. This study found that, despite previously documented differences in the practice styles of family physicians and general internists, patients rated the care they received from physicians in the two specialties equally highly on four separate dimensions of care. In spite of differences in practice style that might cause one to expect otherwise, patients of family physicians did not rate their access to care more highly than did patients of general internists, and patients of general internists did not rate the quality of the care they received more highly than did patients of family physicians. That no differences in satisfaction were found among patients over 65 years of age, an age group for which family physicians and general internists have been shown to have similar case mixes,² suggests that these findings are not attributable to differences in case mix.

One possible explanation for the finding of no difference in how patients evaluate the care they receive from family physicians and general internists is that the measures used were not sensitive enough to detect meaningful differences. That the satisfaction measures evidenced considerable variability across patients and that they were able to detect differences between patients who "strongly agreed" that the physician was their usual provider and those who only "agreed," however, suggest that the measures are in fact sensitive. In addition, the Patient Satisfaction Questionnaire, from which the questions used in this study were derived, underwent extensive development and evaluation and has been shown to be capable of detecting "clinically and socially relevant" relationships between consumer behavior and dissatisfaction with physicians and health services.¹⁸ Hence, the finding of no significant differences in patients' ratings of satisfaction with family physicians and general internists appears to be real.

The results of this study suggest that despite previous reports of interspecialty differences in access and resource intensity (ie, visit duration and use of diagnostic tests), patients of family physicians and patients of general internists are equally satisfied with several major dimensions of the care they receive. Other factors, such as whether individuals identify a physician as their usual source of care, appear to be much more important.^{7,13,19,20} Whether having a usual source of care is a cause or a result of patient satisfaction is not clear, though analyses by Aday et al⁷ suggest that not having a usual source of care leads to dissatisfaction rather than the reverse.

Other than usual source of care, no consistent correlates of satisfaction were noted. Other variables found to be associated with increased satisfaction are in agreement with some previous studies and in disagreement with others. This inconsistency should not be surprising, since as Ware et al¹⁴ point out, "it is difficult to summarize the

literature regarding demographic and socioeconomic correlates of patient satisfaction" because of the lack of consistent findings across studies.

While this study cannot comment on how the different practice styles of family physicians and general internists affect health status, it provides evidence that neither style of practice is perceived as more satisfactory by the patients who receive care from the physicians in these specialties. The personality of the physician and the match between the physician's practice style and the patient's expectations and desires are probably more important than the physician's type of training.⁷ Because patients selected their physicians, it cannot necessarily be concluded from this study that patients randomized to family physicians and general internists would be equally satisfied with their care.

Two other limitations of this study merit discussion. First, more than one quarter of the physicians and their patients who were eligible to participate in this study failed to do so. Fortunately, the response rates for the two specialties and their patients were fairly similar, and one might expect the potential nonresponse biases to affect the results for each specialty in a similar manner and therefore to have little impact on comparisons between the specialties. Of greater concern to the validity of the results is the higher exclusion rates by general internists (30 percent) compared with family physicians (18 percent) of patients who were felt to not be "medically able to participate" in the study. Even after controlling for differences in physician-assessed patient functional status and a variety of other factors, general internists were still found to be more likely than family physicians to exclude patients. One can only speculate about why internists were more likely to state that their patients were medically unable to participate and about the resulting effect on the results of the study. If the implicit criteria used to exclude patients indeed differ for the two specialties, and if the reasons for exclusion are correlated with satisfaction, it is quite possible that the results will be biased.

IMPLICATIONS

As independent fee-for-service practices are being supplanted by managed health care systems, increased interest is being expressed in the qualifications of physicians for the role of case manager or gatekeeper. Health maintenance organizations, which are providing care for increasing proportions of the United States population, are concerned about selecting physicians who will provide cost-effective care to their patients and who will keep patients satisfied. Other types of managed health care systems, such as preferred-provider organizations, have similar incentives.

Which type of primary care physician provides more cost-effective care remains unclear. While there is evidence suggesting that general internists may provide more costly care than family physicians,^{3,21,22} it is not yet known whether this apparently more costly care results in commensurately better health outcomes. This study provides evidence that patients are equally satisfied with the care they receive from residency-trained family physicians and general internists. In this respect, at least, family physicians and general internists may be viewed as equally acceptable choices by patients and managed health care systems in search of primary care physicians.

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INFORMATION FOR PATIENTS

APPENDIX
Satisfaction Questions

Instructions: Following are some statements about medical care. Please read each one carefully, keeping in mind the medical care you have received from this doctor, even if you have seen him or her only once. On the line next to each statement, circle the number for the opinion which is closest to your own view. (Response categories: strongly agree, agree, not sure, disagree, strongly disagree)

Access Scale Items

1. If I have a medical question, I can reach this doctor for help without any problem.
2. It's hard to get an appointment with this doctor right away.

Humaneness Scale Items

1. This doctor always does his or her best to keep me from worrying.
2. This doctor always treats me with respect.
3. Sometimes this doctor makes me feel foolish.
4. This doctor causes me to worry a lot because he or she doesn't explain medical problems to me.
5. This doctor respects my feelings.
6. This doctor hardly ever explains my medical problems to me.

Quality Scale Items

1. This doctor is not as thorough as he or she should be.

2. This doctor encourages me to get a yearly exam.
3. This doctor is very careful to check everything when examining me.
4. This doctor asks what foods I eat and explains why certain foods are best.
5. This doctor ignores medical problems I've had in the past when I seek care for new problems.
6. This doctor doesn't explain about ways to avoid illness or injury.

General Satisfaction Scale Items

1. I'm very satisfied with the medical care I receive from this doctor.
2. The care I receive from this doctor is just about perfect.
3. This doctor could give better care.
4. There are things about the medical care I receive from this doctor which could be better.

INFORMATION FOR AUTHORS

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Procedures in Family Practice. The role, indications, contraindications, technique, and related aspects of diagnostic or therapeutic procedures of value in everyday practice.

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Brief Reports. Providing for rapid publication of new ideas in clinical, education, or research areas, brief case reports, and preliminary results of clinical or educational research projects. Limited to four double-spaced manuscript pages with no abstracts required.

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1. Fishbane M, Starfield B: Child health care in the United States: A comparison of pediatricians and general practitioners. *N Engl J Med* 1981; 305:552-556
2. Dubovsky SL, Weissberg MP: *Clinical Psychiatry in Primary Care*. Baltimore, Williams & Wilkins, 1978, p 46

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