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Measuring Patient Experience Efforts

What matters most to patients? Participative provider care and staff courtesy

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Abstract

Although there is growing recognition of the importance of having satisfied patients, we know little about what aspects of care matter most to patients. The sources of patient satisfaction and how care delivery can influence them need more empirical study. The objective of this study was to identify which aspects of a patient's experience of care are most important to patient satisfaction, and how dimensions of care relate to clinic size, economic performance, and employee job satisfaction. To explore our question, longitudinal survey data were obtained on patients and employees over two years (1996 and 1997). Relationships between patient satisfaction and the two most critical care experience dimensions, clinic size, economic performance, and job satisfaction were examined. As of result, six major dimensions of patients' experience of care were identified: 1) participative provider care, 2) staff courtesy, 3) self-reported sickness, 4) waiting, 5) staff follow-up, and 6) medical explanations. The first two factors, participative provider care and staff courtesy, account for more than 37% of the total variance in patients' experience of care. Patient satisfaction is negatively and significantly correlated with clinic size but not correlated with job satisfaction, physician productivity, or clinic profitability. The article concludes suggesting that the personal relationships of a patient with his/her doctor and clinic staff are the strongest predictors of patient satisfaction. Patient satisfaction was found to be unrelated to the employee job satisfaction, physician productivity, and clinic economic performance.

Keywords

Patient satisfaction, doctor-patient relationship, staff courtesy, patient experience

To better meet patients' needs and improve the experience of care that patients receive, healthcare providers are increasingly assessing the quality of care using questionnaires or interview instruments that capture patients' perceptions of satisfaction.[1,2] Many of these studies regard patient satisfaction as a function of different characteristics of providers and medical services, or link patient satisfaction to patient level differences.[3-5] In addition to patient socio-demographic variables, items linked to patient satisfaction include access, respect for patients, patient-provider communication, physical care and alleviation of pain, emotional support, follow-up treatment, and scheduling procedures.[6-10] The results of these surveys are believed to have important implications for the delivery of care because patient satisfaction is an important indicator of quality of care.[10,11] Satisfied patients are more likely to adhere to provider recommendations[12] and are less likely to leave the provider's care.[8] Further, satisfied patients have a significant influence on the efficiency and effectiveness of care delivery.[13] Therefore, understanding the sources of patient satisfaction may also help organizations better manage the increasing cost pressures in healthcare.[14]

Although improving patient satisfaction would appear to have positive implications for patients and health care delivery, a consistent, effective, and efficient means of doing so is lacking.[15] Few studies have examined whether patient satisfaction is linked to interactions with clinic staff and processes (an exception is Harris, et al[5]). And fewer studies have investigated the link between patient satisfaction and the economic performance of the organizations providing health care delivery.[16] In this research, we investigate the relative impact that contextual and process dimensions of care associated with physicians, staff, and economic outcomes have on patient satisfaction. Specifically, we examine the context measures of clinic size and clinic employee job satisfaction, process measures related to the activities performed by healthcare providers and staff, and outcome measures including overall patient satisfaction and two indicators of clinic performance--physician productivity and clinic profitability.[17]

The interconnectedness of both contextual and process aspects of care with patient satisfaction has been studied in a variety of healthcare settings,[18] including home care,[19,20] ambulatory care,[8] nursing home care,[21] and adult psychiatric inpatient facilities.[22] Relatively little research has empirically examined a model which includes context, process, and outcome measures in primary care clinics that are associated with a large medical group of a managed healthcare system. The study of primary care clinics is important because clinics are often the entry point for patients into a given medical system. Patients' experiences

in primary care clinics can set the stage for the overall level of satisfaction they feel toward an integrated delivery system.

This research has two objectives. The first goal of the research reported here is to empirically identify and determine the relative importance of different aspects of the patient care experience as they relate to overall satisfaction of patients served by primary care clinics. The second goal is to determine how the various dimensions of care experienced by patients relate to patient characteristics, clinic size, and economic performance as well as the attitudes of clinic physicians, nurses, and staff toward their work as clinical care providers. Although it is widely believed that the experience of care perceived by patients is related to organizational size and success, as well as the attitudes of healthcare providers, very little empirical research exists to substantiate these beliefs.[23]

Methods

The data analyzed here were collected in year 1 (1996) and again in year 2 (1997) from three different sources. First, we obtained from a patient survey that was designed to measure the care experienced by 8363 patients in year 1 and 7733 patients in year 2 who were served by primary care clinics associated with a large medical group. In each year, 93% of patient respondents were white, two-thirds were female, nearly 60% have finished at least some years of college and their average age was slightly over 51 years. The Picker Institute (Boston, MA) administered the survey for the parent healthcare system of the clinics examined here. Unfortunately, information on non-responding patients was not made available to the researchers. The clinics in this study are part of a single integrated healthcare system and are located in communities throughout two Midwestern states. The clinics provide primary medical care, such as family practice, internal medicine, and OB/GYN. The second data source is from the Healthcare Organization Survey. This survey instrument utilizes validated, published measures from the Organization Assessment Instrument (OAI) by Van de Ven and Ferry[24] to capture clinicians' attitudes. The Healthcare Organization Survey was completed in year 1 by 69 managers, 153 physicians, 429 nurses and clinicians, and 318 support staff and in year 2 by 83 managers, 207 physicians, 524 nurses and clinicians, and 334 support staff in these clinics. The total response rate was 33% in year 1 and 39% in year 2. The average age of respondents in year 1 was 41 years and in year 2, 42 years. Based on age and position, the respondents are not significantly different from non-respondents. The third data source came from audited organizational records of productivity and economic performance for each of the clinics in year 2.

The research was designed and conducted in two steps. The first step of the research was undertaken by evaluating the measurement properties of responses to 23 questions in the patient surveys that were provided to the researchers by the managers of the medical group and were collected in year 1 by its survey vendor, the Picker Institute. The identity of patients was deleted from the data file before it was released to the researchers. We used factor analysis as a means of data reduction and to identify dimensions concerning their experience of care received during visits to each clinic from the questions included in the patient survey. Factor analysis helps to determine which patient survey questions converge into common clusters (or factors) are distinct from other clusters of questions. This analysis was performed separately on two cross-sectional samples of patients responding to the patient survey in each of years 1 and 2. Each analysis finds that 23 items constitute 6 dimensions of care. The two waves of data were obtained in order to determine the longitudinal stability of the research findings. The principal components method with oblique rotation was used because satisfaction dimensions are known to be correlated.[10]

In the second step of the research, we averaged the items in each dimension (with equal weight) to develop composite scores and examined these in relationship to overall patient satisfaction and other factors typically associated with patient satisfaction. These variables included contextual items (patient demographic characteristics, providers' attitudes, and clinic size) and clinical outcome indicators of clinic performance (clinic profitability and physician productivity). *Patient demographic* variables were collected in the patient survey and included age, gender, and education.

Job satisfaction is an affective evaluation by an employee of how satisfied he or she is with various facts of the job and work environment. Job satisfaction was collected through the Healthcare Organization Survey. The scale included in this instrument was originally developed by Taylor and Bowers[25] and evaluated as part of the OAI.[24] Van de Ven and Ferry found this index of job satisfaction to exhibit strong evidence of convergent and discriminant validity. The index measures job satisfaction as the average response to 5-point Likert scaled questions that ask how satisfied employees are with their job, co-workers, supervisors, career progress, and how often they have thought about quitting their job. The Cronbach alpha for the items used is .80.

Clinical outcome indicators were obtained from organizational records of clinic productivity and financial performance year 2 only. The measures used in this study (clinic profitability and physician productivity) were chosen based on evaluations that occurred as the researchers discussed the merits of several possible performance indicators with managers of the medical group. *Clinic profitability* is measured using organizational records of

clinic net income (gross revenue less discounts). *Clinic productivity* is measured using organizational records of relative value units (RVU) of care per provider. The RVU is an industry standard established by Medicare to measure the units of patient care delivered by healthcare providers.

Results

In factor analysis, we identified six factors that account for 61% (Table 1) and 60% (Table 2) of the patients' experience of care for respondents in years 1 and 2, respectively. These factor dimensions are labeled as follows:

- ***Participative Provider Care*** includes eight questions dealing with patients' confidence in and respect from the provider, involvement in decisions, provider listening, courtesy and explanation. This first factor accounts for 29.7 % in year 1 and 28.3 % in year 2 of the total variance in responses to the 23 questions that comprise the factor structure. The alpha coefficients for this scale are .84 and .83 in years 1 and 2, respectively, indicating high levels of internal consistency.
- ***Staff Courtesy****,* the second factor includes four questions dealing with patients' perceptions of the courtesy of office staff and patients' ratings of the information given by the staff. This factor explains another 9.9 % and 9.6% of the variance in patients' responses in years 1 and 2, respectively. Internal consistency is high for both years with alpha coefficients of .87 and .86 in years 1 and 2, respectively.
- ***Self-Reported Health Status*** includes three questions on patients' self-reported health status, days in bed, and recent hospitalization. This third factor accounts for about 6 percent of the variation in patient responses in the two annual surveys. The alpha coefficients for this scale reflect marginal consistency (.45 and .44 in years 1 and 2, respectively).
- ***Staff Follow-up***, the fourth factor deals with three questions about the arrangement for return visits and referrals and knowing whom to call with questions. This factor explains another 5% of the variance in patient responses in each year. The alpha coefficients for this scale reflect moderate internal consistency (.66 and .63 in years 1 ands 2, respectively).
- ***Waiting****,* the fifth factor includes two questions on patients' perceptions of waiting too long in the lobby and the exam room. This factor accounts for 5% of the total variance in patient responses. Internal consistency is high with alpha coefficients for this scale of .85 and .83 in years 1 and 2, respectively.
- ***Medical Explanations*** is the sixth factor and includes three questions about explanations provided to patients of medical symptoms, medications, and their side effects. This factor explains another 4 % of the variance in patients' responses. The alpha coefficients for this scale indicate adequate internal consistency (.69 and .68 in years 1 and 2, respectively).

Discriminant validity is demonstrated in Tables 1 and 2 by noting that each of the items load strongly on a single factor and weakly on all others. One statistical exception is the relatively strong loadings in year 2 of items found in factor 6 (medical explanations) on factor 1 (participative provider care), and vice versa. Conceptually, this is not surprising. How can a patient participate meaningfully in his/her care without clear explanations of his/her symptoms and medications? Thus, it seems very reasonable that these two factors overlap conceptually. The stability of the results from years 1 and 2 on the two cross-sectional samples lends considerable confidence to the identification of these dimensions of patients' experience of care. Overall, the results provide good statistical evidence of the validity of the clusters of items measuring six meaningful and distinct factors.

The top parts of Tables 3 and 4 present correlations among the six dimensions of care for respondents in years 1 and 2, respectively. The tables show that in each year, five of the six factors are strongly interrelated. Participative patient care and staff courtesy are strongly correlated ($r = .41$ for both years) and both are positively related to staff follow-up ($r >$ or $=.27$ in year 1 and $>$ or $= .24$ in year 2) and medical explanations ($r >$ or $=.29$ in year 1 and $>$ or $= .28$ in year 2). Further, both participative provider care and staff courtesy are negatively associated with waits and delays ($r = -.33$ in year 1 and ranges from -.30 to -.32 in year 2). The exception to these strong inter-correlations is with patients' self-reported health status. The correlations between patients' health status and the other five factors are all less than .08 in magnitude. In other words, the self-perceived health status of patients is not strongly related to the patients' experience of care.

We then examined how these factors correlate with three patient demographic variables and three individual items that assess the patients' general satisfaction with their visits to the clinics. These items were not included in the factor analysis and consist of the patient's *age, education, and gender* and the patient's *willingness to recommend the clinic to family and friends, satisfaction with the purpose of the visit, and overall visit rating*. The lower sections of Tables 3 and 4 show the correlations between these items and the dimensions of patient care experience. We find that these patient demographic and satisfaction measures are positively and significantly correlated with participative provider care, staff courtesy, staff follow-up, and medical explanations. For the most part, these dimensions are negatively correlated with waiting time, and not correlated with self-reported health status ($r <$ or $= .08$). Exceptions are found in the correlations between patient age and health status ($r = .24$ in year 1 and .27 in year 2) and between patient education and health status ($r = -.23$ in year 1 and -.22 in year 2). Other than these two strong correlations, we find

Table 1. Factor Analysis of Patient Survey in Year 1

	1	2	3	4	5	6
1 Participative Provider Care						
patient explain visit	**0.85**	0.02	0.00	-0.07	0.04	0.13
provider listened	**0.88**	0.00	0.02	-0.01	0.03	0.06
received answers	**0.55**	-0.03	-0.05	0.09	-0.10	-0.19
trust in provider	**0.60**	-0.06	0.07	-0.04	0.01	-0.20
treated with respect	**0.79**	-0.01	0.02	0.02	-0.01	0.04
involved in decisions	**0.56**	-0.02	-0.03	-0.02	-0.04	-0.24
time with provider	**0.49**	0.05	-0.09	-0.19	-0.15	-0.02
provider courtesy	**0.52**	-0.39	0.00	0.05	0.01	-0.16
2 Staff Courtesy						
courtesy of appointment-maker	0.04	**-0.83**	0.01	-0.01	-0.05	0.09
courtesy of office staff	0.07	**-0.83**	0.02	0.00	-0.07	0.07
courtesy of telephone advice staff	-0.02	**-0.88**	-0.02	-0.02	0.01	-0.01
rating of telephone advice received	-0.08	**-0.80**	-0.02	-0.08	0.03	-0.11
3 Health Status						
self reported health rating	0.01	0.10	**0.67**	-0.09	-0.07	0.13
days in hospital prior month	0.00	-0.04	**0.71**	0.06	0.02	-0.05
times hospitalized prior 6 months	0.01	-0.05	**0.73**	0.01	0.03	-0.09
4 Staff Follow-up						
arrange return visit	-0.02	-0.09	0.01	**-0.83**	-0.01	0.07
arrange referral	-0.02	-0.01	0.03	**-0.82**	-0.03	-0.02
know who to call with questions	0.09	0.00	-0.03	**-0.52**	0.02	-0.18
5 Waiting						
wait in waiting room	0.03	0.05	0.02	0.00	**0.86**	-0.02
wait in exam room	-0.01	0.00	-0.03	-0.01	**0.85**	0.03
6 Medical Explanations						
explain symptoms	0.17	0.02	0.01	-0.12	0.02	**-0.63**
explain medications	0.13	0.02	-0.03	-0.01	-0.05	**-0.73**
explain side effects	-0.11	-0.06	0.03	-0.04	-0.04	**-0.80**
Eigenvalue	6.83	2.27	1.53	1.27	1.22	1.04
% of total variance explained by this factor	29.69	9.88	6.67	5.53	5.32	4.52
Cumulative % variance explained	29.69	39.57	46.23	51.77	57.08	61.60
Cronbach's alpha	0.84	0.87	0.45	0.66	0.85	0.69

Notes: Extraction Method: Principal Component Analysis.
Rotation Method: Oblimin with Kaiser Normalization.
N = 8363 patients

that patient education and gender do not play a role in determining patients' assessments of their care experience; most of the correlations are statistically insignificant and all fall below .06.

To determine, from the patient's perspective, the relative importance of the six care experience factors, we conducted multiple regression analysis utilizing the overall visit rating as the primary indication of patient satisfaction. This item asks respondents "overall, how would you rate this visit" on a 5 point scale that ranges from poor to excellent. The regression analysis results shown in Table 5 demonstrate that for both cross sectional sample the first two factors, participative provider care and staff courtesy, account for far more of the total variance in patient satisfaction than any other factors. Each of these two factors has a standardized beta coefficient between .38 and .43, which is nearly three times as large as the next largest coefficient (wait time, -0.13). Participative provider care and staff courtesy have, by far, the strongest relationship with overall patient satisfaction.

Similar to measures used in previous studies on elderly patients,[26] physician styles,[7] and different types of health care systems,[9] both of these two dominant factors reflect the quality of patient-provider relationships. Participative

Table 2. Factor Analysis of Patient Survey in Year 2

	1	2	3	4	5	6
1 Participative Provider Care						
patient explain visit	**0.76**	-0.17	-0.05	-0.17	-0.20	-0.35
provider listened	**0.83**	-0.20	-0.07	-0.24	-0.23	-0.37
received answers	**0.65**	-0.23	-0.12	-0.18	-0.23	-0.41
trust in provider	**0.73**	-0.28	0.00	-0.24	-0.19	-0.41
treated with respect	**0.76**	-0.20	0.00	-0.24	-0.19	-0.31
involved in decisions	**0.70**	-0.26	-0.10	-0.23	-0.20	-0.55
time with provider	**0.56**	-0.19	-0.13	-0.37	-0.31	-0.38
provider courtesy	**0.69**	-0.55	-0.07	-0.16	-0.27	-0.51
2 Staff Courtesy						
courtesy of appointment-maker	0.26	**-0.82**	-0.01	-0.18	-0.31	-0.24
courtesy of office staff	0.30	**-0.83**	0.01	-0.23	-0.35	-0.27
courtesy of telephone advice staff	0.21	**-0.86**	-0.07	-0.21	-0.20	-0.25
rating of telephone advice received	0.24	**-0.83**	-0.07	-0.20	-0.17	-0.30
3 Health Status						
self reported health rating	-0.07	0.13	**0.64**	-0.13	0.01	0.11
days in hospital prior month	-0.03	0.00	**0.72**	0.04	0.04	-0.01
times hospitalized prior 6 months	0.00	-0.06	**0.75**	-0.02	0.00	-0.04
4 Staff Follow-up						
arrange return visit	0.25	-0.24	0.02	**-0.82**	-0.18	-0.23
arrange referral	0.20	-0.20	0.06	**-0.83**	-0.18	-0.20
know who to call with questions	0.37	-0.19	-0.08	**-0.47**	-0.24	-0.41
5 Waiting						
wait in waiting room	-0.18	0.22	0.03	0.16	**0.86**	0.12
wait in exam room	-0.26	0.26	0.02	0.18	**0.84**	0.19
6 Medical Explanations						
explain symptoms	0.50	-0.24	-0.06	-0.31	-0.16	**-0.74**
explain medications	0.48	-0.24	-0.06	-0.22	-0.22	**-0.79**
explain side effects	0.30	-0.28	0.02	-0.19	-0.14	**-0.81**
Eigenvalue	6.52	2.21	1.56	1.33	1.22	1.01
% of total variance explained by this factor	28.37	9.62	6.77	5.77	5.31	4.37
Cumulative % variance explained	28.37	37.99	44.76	50.53	55.84	60.22
Cronbach's alpha	0.83	0.86	0.44	0.63	0.72	0.68

Notes: Extraction Method: Principal Component Analysis.
Rotation Method: Oblimin with Kaiser Normalization.
N = 7333 patients

provider care includes aspects of communication and relationships between the patient and provider. The communication items reflect a two-way flow of information in which patients explain concerns and ask questions, and the provider listens and gives understandable answers. The relational items deal with confidence in the provider, the provider's respect for the patient, and the involvement of the patient in the interaction.

Staff courtesy, while focusing on a different set of referents, also includes a strong relational component. Doctors and nurses are not the only clinic personnel whose interaction is important to patients. The courtesy of clinic staff members toward patients is an important factor in patients' assessment of their care experience. When combining the first two factors, participative provider care and staff courtesy account for nearly 40% of the total variance in patients' satisfaction in the factor analysis, and they dominate the regression model as the two strongest predictors of satisfaction. In contrast to previous work,[26] waiting in reception or examination rooms explain only 5% of the variance in patient satisfaction for these two cross-sectional patient samples.

Table 3. Correlations Among Six Factors of Care Experience and Patient Satisfaction in Year 1

	1	2	3	4	5	6
1. Participative Provider Care	1					
2. Staff Courtesy	0.41	1				
3. Health Status	-0.07	*-0.03*	1			
4. Staff Follow-up	0.39	0.27	*0.00*	1		
5. Waiting	-0.33	-0.33	*0.01*	-0.21	1	
6. Medical Explanations	0.55	0.29	*-0.03*	0.32	-0.22	1
Demographic Characteristics						
Patient Age	0.13	0.19	0.24	0.11	-0.16	0.07
Patient Education	0.06	-0.04	-0.23	*0.00*	*-0.03*	*-0.03*
Patient Gender	*-0.01*	*0.03*	*0.02*	*0.00*	*0.00*	*0.01*
Indications of Patient Satisfaction						
Visit Purpose Satisfied	0.65	0.30	-0.07	0.36	-0.27	0.45
Recommend to Family and Friends	0.56	0.47	*-0.01*	0.34	-0.33	0.39
Overall Visit Rating: Satisfaction	0.67	0.64	-0.08	0.33	-0.41	0.45

All correlations are significant at .001 except italicized items
N = 8363 patients

Table 4. Correlations Among Six Factors of Care Experience and Patient Satisfaction in Year 2

	1	2	3	4	5	6
1. Participative Provider Care	1					
2. Staff Courtesy	0.41	1				
3. Health Status	-0.08	-0.04	1			
4. Staff Follow-up	0.37	0.24	*-0.01*	1		
5. Waiting	-0.30	-0.32	0.04	-0.20	1	
6. Medical Explanations	0.56	0.28	-0.05	0.32	-0.19	1
Demographic Characteristics						
Patient Age	0.13	0.17	0.27	0.10	-0.15	0.09
Patient Education	*0.03*	*-0.04*	-0.22	-0.04	*0.01*	-0.06
Patient Gender	*-0.01*	*0.03*	*0.01*	*0.00*	*-0.01*	*0.02*
Indications of Patient Satisfaction						
Visit Purpose Satisfied	0.64	0.27	-0.07	0.33	-0.25	0.45
Recommend to Family and Friends	0.56	0.45	*0.00*	0.33	-0.33	0.39
Overall Visit Rating: Satisfaction	0.67	0.62	-0.07	0.33	-0.40	0.45

All correlations are significant at .001 except italicized items.
N = 7333 patients

Finally, we also examined the relationship between patient satisfaction and job satisfaction of doctors, nurses, and staff who provided care to the patients, clinic size, and performance using correlations and regression analysis. In order to conduct this analysis at the clinic level, we averaged responses of patients who were served by each clinic, averaged the employees' responses to the Healthcare Organization Survey in each clinic, and merged these data with data on each clinic (i.e. size, profitability, and physician productivity). We eliminated data from the sample clinics, which had either missing data or a limited number of responses. This left 42 clinics for the analysis. The results (shown in Tables 6 and 7) reveal three important findings.

First, Table 6 shows that patient satisfaction is not highly correlated with employee job satisfaction (r = .04) as

measured in the Healthcare Organization Survey. Second, patient satisfaction is strongly negatively correlated with clinic size (r = - .40). Third, patient satisfaction is statistically not related to clinic profitability (r = .04) or clinic productivity (r = .02). Thus, an increase the economic profitability and productivity of health care does not occur at the expense of patient satisfaction. In the sample of clinics examined here, pursuing economic performance of health care is largely independent of efforts to advance patient satisfaction.

Table 5. Regression Analysis of Patients' Experience of Care on Patient Satisfaction

	Dependent Variable: Overall Satisfaction		
Independent Variables	**Standardized Beta Coefficients**	**t-test**	**Sig.**
Year 1			
1. Participative Provider Care	0.42	44.48	.000
2. Staff Courtesy	0.41	50.28	.000
3. Health Status	-0.03	-4.12	.000
4. Staff Follow-up	0.01	1.84	.066
5. Waiting	-0.12	-15.56	.000
6. Medical Explanations	0.07	8.20	.000
F-Ratio	2059.97		
Adjusted R-Square	.632		
Year 2			
1. Participative Provider Care	0.43	42.04	.000
2. Staff Courtesy	0.38	42.83	.000
3. Health Status	-0.01	-1.84	.066
4. Staff Follow-up	0.03	3.11	.002
5. Waiting	-0.13	-15.83	.000
6. Medical Explanations	0.07	7.21	.000
F-Ratio	1702.13		
Adjusted R-Square	.619		

These findings are also supported by Table 7 which shows that the only significant contributions to explaining patient satisfaction when controlling for patient satisfaction the year before derive from participative provider care (β= .417, ρ <.000) and staff courtesy (β = .374, ρ < .000). Clinic net income, provider productivity, employee job satisfaction, and clinic size made no additional contributions to explaining patient satisfaction over and above what participative provider care and staff courtesy already explained in the multiple regression analysis. In other words, patient satisfaction is predicted by the patient's relationship with his/her doctor and the courtesy of staff to the patient during the clinic visit.

Comment

The major findings from our analysis of year 2 data replicated the findings from year 1 in all substantive respects. We find that patients' care experience is comprised of six major dimensions: *participative provider care, staff courtesy, self-reported sickness, staff follow-up, waiting,* and *medical explanations*. Of these different dimensions, the first two factors, participative provider care and staff courtesy account for more than 37% of the total variance in survey responses by patients. Regression analysis shows that these two factors are by far the most powerful predictors of overall patient satisfaction. Factors related to the clinic context and economic outcomes explain no additional variance in patient satisfaction.

These findings have important implications for health care policy and management. First, while previous findings in other settings have emphasized the link between patient satisfaction and patient health status[27-29]and shorter wait times,[26] our findings show that these are not what matters most to patients. Patients in primary care clinics derive their major sources of satisfaction from participative provider care and courteous clinic staff. This reinforces a traditional view that what is most important to patients is the relationship they have with their provider and clinic. Patients seek a relationship of respect and trust with a provider who involves them in a two-way flow of discussions, explanations, and decision-making in medical diagnosis and treatment.

These findings underscore previous work which suggests that physician-patient communication,[30] participatory physician styles,[7] and interpersonal dimensions such as trust in one's physician[12] are strongly associated with patient satisfaction. However, these findings also extend previous work. The extant research has focused almost exclusively on the relationship between physician and patient, overlooking the potential influence that other clinic members have on patient perceptions of their care experience and their satisfaction with their primary care clinic. These findings suggest that not only is this relationship important, but relative to other dimensions including waiting time and the patient's own health status, it has a more significant bearing on patient satisfaction. Further, these findings suggest that although reducing wait times and providing follow-up and medical explanations may enhance the care experience, providers of health care seeking to improve patients' satisfaction are well advised to focus first on the relationships between the patients and their doctors and clinic employees.

Table 6. Correlations Among Patient Satisfaction and Clinic Performance in Year 2

	Patient Satisfaction	Profitability	Physician Productivity	Employee Job Satisfaction
Profitability	0.04			
Physician Productivity	0.02	0.22		
Employee Job Satisfaction	0.12	-0.05	0.14	
Clinic Size	**-0.40**	-0.22	-0.10	0.03

Note: Only the highlighted correlation is statistically significant at .05 level.
N = 42 clinics. 1997 survey data were aggregated to clinic level in order to examine clinic performance.

Table 7. Regression Analysis Predicting Patient Satisfaction in Year 2

Independent Variables	**Standardized Beta Coefficients**	**t-test**	**Sig.**
1996 Patient satisfaction	0.280	2.423	0.021
1997 Participative provider care	0.417	4.279	0.000
1997 Staff courtesy	0.374	3.894	0.000
1997 Profitability	-0.059	-0.807	0.425
1997 Physician productivity	-0.009	-0.128	0.899
1997 Employee job satisfaction	-0.025	-0.333	0.741
1997 Clinic size (FTEs)	-0.030	-0.374	0.711
F-ratio	25.204		
Adjusted R-Square	.805		

N = 42 clinics. 1997 survey data were aggregated to clinic level in order to examine effects of clinic size and performance on patient satisfaction.

Second, in this study of primary care clinics, we also find that patient demographic characteristics do not play into the patients' assessment of the care experience. In other words, regardless of the patient's age, education, and gender, the same six factors comprise the care experience. Further, across different patient groups, patients indicate that the relationships with their physician and the clinic staff are prominent dimensions of their care experience.

Third, in this sample of clinics, patient satisfaction was largely unrelated to clinic productivity and profitability. Theories of efficiency would suggest that seeing more patients and thereby, spending less time with each individual patient would result in higher levels of profitability and resource utilization. Therefore, the very dimensions that we find to be related most strongly to patient satisfaction would decrease clinic profitability and physician productivity. However, we find that this trade-off does not exist. Patient satisfaction and economic performance are largely independent of each other; advancing one is not at the expense of the other.

Finally, we find that neither organizational size nor employee attitudes have a strong impact on patient satisfaction. Clinics with employees who score higher in terms of their job satisfaction do not also have more satisfied patients. Further, although clinic size has a significant negative bi-variate correlation with patient satisfaction, this relationship is *not* present when participative provider care and staff courtesy are taken into account. Thus, although patient satisfaction has been related to clinic size,[31] this study suggests that the interpersonal context appears to supersede the structural context of the clinic. When examining the relationship between patient satisfaction and patient characteristics, clinic settings, and health care providers, more attention is needed on the relationship between the patient and those with whom they interact.[32] Clearly, what matters most to the patients surveyed in this study is the doctor-patient relationship and a courteous staff.

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