Patient and Provider Satisfaction in Navy Family Practice and Non-Family Practice Clinics

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Differences between family practice and non-family practice health care service delivery have been characterized in terms of patient satisfaction. As health care providers may often behave according to their conceptions of what is satisfying for patients, a clarification of the degree of congruence between patient self-reports and provider impressions is needed. Responses to four patient satisfaction scales were obtained from 136 providers and 1,735 patients in both family practice and non-family practice Navy clinics. Results of separate multiple discriminant analyses conducted between settings for both provider and patient groups indicated that providers emphasized trust and range of services as hallmarks of family-oriented care. Patients, alternatively, emphasized accessibility of services, whereas range of services was not relevant to differentiating between treatment modalities.

A major consequence of the upsurge in patient satisfaction research has been to vindicate the continued promotion of a shifting away from population-oriented health care delivery toward a more family-oriented approach. The family practice movement within hospitals and clinics advocates an ongoing relationship between a primary care provider and the members of entire family units. Assessments of patient satisfaction associated with such an approach are viewed as key factors in enhancing provider-patient rapport.[1] Health care providers assume that such rapport is beneficial, both in ensuring more accurate diagnosis and in providing effective health education through better two-way communication.[2] Enhanced rapport has also been viewed as a means for achieving continuity of care[3] and for improving treatment compliance and speed of recovery through increased trust.[4,5]

In addition, the family practice movement has stimulated a more diligent effort throughout the health care professions to modify professional behavior toward enhanced patient satisfaction. Although the perceptions of the provider ultimately guide and shape his own behavior, few studies have examined whether patient self-reports of sat-

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isfaction bear any resemblance to provider perceptions of patient satisfaction. One such study[6] reported differences between provider and patient rankings of the importance of scientific knowledge and technical skill with respect to quality-of-care assessments. Other investigators[7] also used ranking of single items to identify provider-patient differences, indicating that patients differed in satisfaction with (1) how rushed they felt during the treatment process and (2) the level of thoughtfulness of the providers themselves. Generally speaking, however, each of these studies employed either small samples or weak methodology, and thus, did not accurately reflect the potential available in studying perceptual differences in patient and provider assessments of satisfaction.

In short, researchers have typically permitted providers to define patient satisfaction dimensions without examining whether patient priorities may in fact differ from those assumed by providers. The nature and degree of perceptual convergence or divergence between providers and patients may generate useful information regarding differences in the effects that various treatment modalities may have on patient satisfaction and, perhaps, therapeutic outcome.[8] In addition, knowledge of how providers' perceptions differ from those of patients could suggest ways to become more responsive to patient needs. Thus, the purpose of the present study was to (1) explore more fully perceptual differences in provider- and patient-based assessments of satisfaction in large, outpatient samples, and (2) determine differences in such perceptions attributable to mode of treatment delivery (ie, family practice vs traditional primary care orientation).

Methods

The sample consisted of providers and patients at either of two small US Navy hospitals. One facility employs a family practice approach to providing outpatient health care services; the other provides primary care in a more traditional fashion on an as-requested basis. The facilities are similar in size, range of services offered, organizational structure, staffing, and type of patient served (ie, generally young, active-duty military personnel and their dependents). From the family practice facility, 947 outpatients seeking treatment at the main hospital and 70 providers working at the same location were sampled over a two-week period. From the non-family practice facility, 788 outpatients and 66 providers were sampled during a comparable two-week period. The sample excluded providers assigned to the respective facilities for a period of less than 90 days as well as patients who had never received treatment at another military health care facility. This limitation helped to ensure adequate familiarity and sophistication among the respondents.

Patients completed a questionnaire composed of 24 items addressing satisfaction with health care prior to leaving the hospital following the completion of their visit. Providers were asked to complete the same 24-item questionnaire, but were asked to respond with their impression of what they thought to be the level of general patient satisfaction. Provider surveys were completed in small-group sessions during normal working hours as part of a larger study of their work environment. Provider and patient participation was voluntary, and cooperation for both groups exceeded 85 percent.

The 24 satisfaction-related items were drawn from a wide number of sources including patients, health care professionals employed at other naval medical facilities, and the available literature on patient satisfaction. Specific aspects of satisfaction included access to care, range of services available, quality of care, and technical and interpersonal characteristics of the providers. Respondents were asked to indicate their level of satisfaction on a five-point Likert-type scale. Response choices ranged from "very dissatisfied" to "very satisfied."

Four a priori scales were formed, each composed of items that fell conceptually into categories suggested by Ware and Snyder.[9] These categories included (1) patient trust (the amount of satisfaction the patient associates with confidence in the provider, four items), (2) provider respect (satisfaction associated with the level of courtesy and consideration shown by providers, five items), (3) accessibility of services (satisfaction associated with the time it takes to receive treatment, four items), and (4) range of services (satisfaction with the variety and availability of service, five items). The final four scales were, thus, based on only 18 items; six items were deleted for failure to conform to one of the a priori categories or for possessing poor psychometric quality. Estimates of internal consistency reliability (coefficient alpha)

Table 1. Results of Multiple Discriminant Analysis of Patient-Based Satisfaction Assessment

Satisfaction Factors	Non-Family Practice (n = 788) Mean	Standardized Discriminant Function Loadings	Family Practice (n = 947) Mean	*F*	P
Patient trust	3.73	.33	4.19	132.2	.001
Provider respect	3.77	.32	4.20	134.8	.001
Range of services	3.55	.00	3.93	108.8	.001
Accessibility of services	3.44	.43	3.89	124.0	.001
Classification*	55.1%		70.0%		
Canonical *R*	.29	χ^2 (4) = 148.5, P < .001			

*Overall classification = 62.6 percent

were computed separately for patients and providers. All estimates exceeded .80, except in the provider samples, where the range and accessibility of services scales were an acceptable .73 and .76, respectively.

Results

To determine modality differences (family practice vs non-family practice) in provider and patient perceptions of service satisfaction, separate discriminant analyses were conducted on the provider and patient samples. Discriminant analysis produces weighted combinations of variables (discriminant functions) that reflect maximum differences between designated groups. In addition to providing an overall test of significance, the magnitude of the discriminant functions simplifies interpretation of between-group differences by controlling for the degree of dependence among the variables.

The discriminant analysis results for patients are shown in Table 1. As expected, all four patient satisfaction-scale scores are significantly higher among family practice patients in both the multivariate (canonical R) and univariate (one-way *F* test) sense. Inspection of the standardized discriminant function loadings indicates that accessibility of services was most critical in differentiating family practice from non-family practice differences and range of services was least important to differentiation on the basis of satisfaction, whereas patient trust and provider respect (ie, how the provider comes across interpersonally) were equipotent in differentiating between treatment modalities. Put more simply, family practice clinic patients were more satisfied overall, the dimension most affected by treatment modality being accessibility to the provider. Of secondary importance was how patients perceived providers interpersonally. Satisfaction with the range of services provided at each facility was not an effective discriminator between family practice and non-family practice modalities; this is consistent with the two facilities being essentially identical in this attribute.

Table 2 contains the discriminant analysis results for providers. As is the case with patients' self-reported satisfaction, the level of patient satisfaction perceived and reported by providers in the family practice facility is significantly higher ($P < .001$) than the level reported by providers in the non-family practice setting. Inspection of the discriminant loadings, however, shows that providers had a different conception of how the two treatment modalities affect patient satisfaction. Briefly, analysis of provider responses indicates that trust and range of services were equipotent and most important in differentiating between modalities, accessibility was of secondary importance, and provider respect, although significant in a univariate sense, was not relevant at the multivariate level in distinguishing between family practice and non-family practice treatment modalities. Although provider respect is by no means unimportant in a practical sense, the small discriminant function coefficient of .19 indicates that nearly all between-clinic differences were accounted for by trust, range, and accessibility.

Finally, it is interesting to note that in both fam-

Table 2. Results of Multiple Discriminant Analysis of Provider-Based Satisfaction Assessment

Satisfaction Factors	Non-Family Practice (n = 66) Mean	Standardized Discriminant Function Loadings	Family Practice (n = 70) Mean	*F*	P
Patient trust	3.45	.53	3.86	18.51	.001
Provider respect	3.43	.19	3.79	12.35	.001
Range of services	3.16	.61	3.59	19.98	.001
Accessibility of services	2.82	.32	3.31	14.99	.001
Classification*	63.6%		71.4%		
Canonical *R*	41	χ^2 (4) = 23.70, P < .001			

*Overall classification = 67.5 percent

ily practice and non-family practice facilities, provider perceptions of patient satisfaction were consistently lower than actual, patient-based satisfaction responses. When mean comparisons are made for overall satisfaction, these within-facility provider-patient differences are found to be statistically significant ($t = 5.31$, $P < .001$, and $t = 4.03$, $P < .001$ for family practice and non-family practice, respectively). At other than the aggregate level, inspection of the mean values contained in Tables 1 and 2 indicates that comparable differences existed for each of the satisfaction subscales as well. The greatest differences occur in the area of accessibility, and the smallest patient-provider differences are found for patient trust.

Discussion

In keeping with the results of previous research, patient perceptions of satisfaction are found to be significantly higher in a family practice-oriented setting than in a non-family practice setting.[10] While providers in the family practice clinic also reported significantly higher levels of perceived patient satisfaction than did their non-family practice counterparts, providers in both treatment settings consistently underestimated the level of satisfaction reported by patients. This finding is in accord with previous work indicating that patient reports of satisfaction are generally very high.[11,12]

Interestingly, however, the factors that distinguished between treatment modalities were dissimilar between providers and patients. Briefly, from the patient's perspective, accessibility of services provided the greatest degree of discrimination between family practice and non-family practice groups. Satisfaction with trust and respect also contributed significantly to discrimination between groups, although at a reduced level. The potency of accessibility of services as a discriminator between family practice and non-family practice is a particularly noteworthy effect because the general public (1) places a high value on access,[13] and (2) generally reports less satisfaction with access than with technical aspects of treatment.[14] Provider-based responses, on the other hand, reveal that range of services and patient trust formed the basis for maximum discrimination, whereas accessibility proved to be a significant factor, but of somewhat lower magnitude.

Generally speaking, these results should not be construed as detracting from the popular emphasis on promoting interpersonal trust and respect advocated by family physicians. It is clear from inspection of the scale means shown in Table 1 that from a patient's perspective, the family practice facility scored significantly higher on all listed dimensions of satisfaction. However, the satisfaction dimension that most distinguished between treatment modalities was accessibility of care. Such findings are consistent with the fact that patient evaluations often center on the manner in which services are delivered rather than the nature or variety of services themselves.[15] As one author noted, the value patients attach to accessibility may simply reflect a feeling that the family physician represents a responsive ally within the larger context of the health care bureaucracy.[16] The potential validity of this "responsive ally" interpretation is in

enhanced patient trust and provider respect being equally important from the patient's point of view.

At the provider level, it would be misleading to conclude that range of services is perceived as more important than interpersonal manner (in this case, provider respect). The analysis demonstrated that providers perceived patient satisfaction with range of services to be coequal with trust in differentiating between modalities, although the facilities are nearly identical in range of services offered. This finding stands in marked contrast to that for patients, whose data do not support the importance of range of services in distinguishing between modalities.

Such a difference may serve to highlight the contrasting nature of provider and patient roles in primary care. The provider role logically emphasizes responsiveness to patient health care needs. A major way in which a provider can enhance responsiveness is through expanded range of services. Since family physicians are specially prepared to provide a broad range of services, it is not surprising that they scored themselves higher on range of services in this study. On the other hand, the patient role centers on obtaining prompt relief from symptoms. In a hospital or clinic setting, access to relief-giving care is controlled not by the patient, but by the health care organization. As members of the organization, providers have ready access to patients and may, therefore, fail to recognize that the reverse is not also true.

Finally, the results of earlier studies tended to rely on a comparison of mean overall rankings, or rankings of the first choice from a list of single items.[6,7] The current study ranked importance of satisfaction dimensions on the basis of the unique amount of variance accounted for by a composite of items, which is psychometrically a more reliable process. The discriminant analysis approach further enhanced validity by reducing the effects of error due to method variance associated with requesting patients (or providers) to set priorities for their satisfaction with care, when they may not conceive of their health care needs in such a manner. The research presented here also offers some substantial differences and improvements on earlier designs examining patient satisfaction and modality of treatment. These differences were accomplished by including both patient and provider perceptions, in a between-group and between-modality comparison, using multivariate analyses that could elicit important and unanticipated effects of treatment modality on patient satisfaction.

Although the results of the current study tend to support earlier reports based on ranked findings, the expanded scope and improved methodology associated with the findings reported above do permit more articulate and generalizable inferences about the nature of those differences as affected by treatment modality. Rather than simply underscoring that providers and patients differ in perceptions regarding family practice and non-family practice satisfaction assessments, such inferences provide the opportunity to improve an understanding of factors that influence overall patient satisfaction and, ultimately, policy concerning health care service delivery.

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