Physician Job Satisfaction

Developing a Model Using Qualitative Data

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The purpose of this study was to develop a current and comprehensive model of physician job satisfaction. Information was gathered by (1) analysis of open-ended responses from a large group practice physician survey in 1988, and (2) analysis of focus group data of diverse physician subgroups from 1995. Participants were 302 physicians from large-group practices and 26 participants in six focus groups of HMO, women, minority, and inner-city physicians. Data were used to develop a comprehensive model of physician job satisfaction. The large group practice survey data supported the key importance of day-to-day practice environment and relationships with patients and physician peers. Future concerns focused on the effect of managed care on the physician-patient relationship and the ability of physicians to provide quality care. Focus groups provided contemporary data on physician job satisfaction, reinforcing the centrality of relationships as well as special issues for diverse physician subgroups of practicing physicians. New variables that relate to physician job satisfaction have emerged from economic and organizational changes in medicine and from increasing heterogeneity of physicians with respect to gender, ethnicity, and type of practice. A more comprehensive model of physician job satisfac-

tion may enable individual physicians and health care organizations to better understand and improve physician work life.

KEY WORDS: physician job satisfaction, qualitative analysis, women physicians, career satisfaction.

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Multiple studies have detailed select aspects of physician job satisfaction,¹⁻⁶ but little has been done to systematically identify variables that influence career satisfaction. In addition, important physician subgroups, such as women, minorities, and inner-city physicians, have been underrepresented in the literature on this subject.^{5,6} In this study, we incorporate previous research⁷⁻¹⁴ with new analyses of qualitative data to refine and further assess a multi-dimensional, comprehensive set of variables related to physician job satisfaction. This report details methods of model development,^{15,16} a revised model, and differences in job satisfaction due to ethnicity, gender, and specialty.

METHODS

Development of Physician Job Satisfaction Variable Set

An initial set of factors important to physician job satisfaction (MDSat) was developed by physician and social scientist investigators using previous research on physician satisfaction,¹⁻⁶ studies by the SGIM Career Choice Task Force,¹²⁻¹⁴ previous work of other study investigators,⁷⁻¹¹ and a sample of open-ended responses from the 1988 Large Group Practice Physician Satisfaction Survey (Table 1) that were not used in the subsequent validation process. This item pool of variables was revised using the above survey data as well as focus group analysis.

Large Group Practice Qualitative Data

The Large Group Practice Physician Satisfaction Survey was distributed in 1988 to 8,000 physicians, 50% of whom were in primary care. Forty percent of respondents answered three open-ended survey questions regarding satisfaction, dissatisfaction, and future concerns. From a computerized randomization scheme, we analyzed a convenience sample of approximately 10% of respondents ($n = 302$, 110 women and 192 men, with minorities oversampled). Using standard methods of qualitative analysis,^{15,16} responses were bracketed to highlight relevant phrases. Two trained coders unacquainted with the study's hypotheses entered phrases into an Excel spread sheet and inde-

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pendently coded them using the MDSat variable set (Table 1). A third coder broke ties when necessary (less than 5% of statements). A κ value of 0.71 indicated good reliability of coding. Response frequencies were tabulated and analyzed according to physician gender, specialty, and ethnicity.

Focus Group Analysis

Physician focus groups were recruited locally in 1995 by group leaders to obtain input from managed care, female, inner-city, and minority physicians from the West Coast, Midwest, New York City, and Boston, respectively. Group selection was based on the desire to validate the

MDSat variable set and expose previously unexplored issues in physician job satisfaction not available from the large group practice survey.

Focus group leaders posed standardized open-ended questions regarding daily satisfaction, dissatisfaction, and future concerns. Transcripts were entered into Ethnograph, a computer software program for qualitative database analysis (Quintiles, Boston, Mass., 1991). A trained coder assigned codes using MDSat for all relevant phrases and paragraphs. A second investigator reviewed transcripts and codes for accuracy as well as major constructs. Code frequencies were tabulated within groups and comments were reviewed. Qualitative data from the large group prac-

Table 1. Original Variable Set of Physician Satisfaction (MDSat) and Revised Set (MDSatR)

MDSat Variable Set	MDSatR Variable Set
Variable 1. Relationships	Variable 1. Relationships
10 Relationships with patients	11 Patients
11 Relationships with colleagues	12 Colleagues
12 Relationships with administrators	13 Team members in office/hospital
Variable 2. Personal/family characteristics	14 Community
20 Issues of aging	15 Administrators
21 Family issues	Variable 2. Personal and family characteristics
22 Mission concordance	21 Family issues
23 Career advancement opportunities	22 Racial and ethnic and gender issues
24 Job security	23 Personal growth/mission concordance
25 Keeping up/continuing medical education	24 Geography
26 Personal time	25 Training characteristics
Variable 3. Day-to-day practice issues	26 Personal time
30 Stress and workload	Variable 3. Day-to-day practice characteristics
31 Paperwork hassles	31 Stress in day-to-day practice/hassle factor
32 Variety of patients/intellectual stimulation	32 Workload
33 Ancillary staff	33 Availability of office and hospital resources
34 Access to specialists	34 Intellectual stimulation
35 Academics	35 Case mix/patient variety
Variable 4. Administrative and organizational issues	36 Access to specialists
40 Impact of HMOs	37 Academics/teaching/research
41 Ability to have input into administrative decisions	38 Malpractice worries
42 Being spared administrative work	39 Keeping up/continuing medical education
43 Access or ability to communicate with leadership	Variable 4. Administrative and organizational issues
44 Competency of leadership	41 Organizational characteristics (size, type)
45 Feedback from the organization	42 Ability to have input into administrative decisions
46 Size of organization	43 Level of administrative work
Variable 5. Government issues	44 Issues of productivity and cost containment
50 Regulations	45 Utilization review/insurance
51 Malpractice	46 Paperwork hassles
Variable 6. Autonomy	47 Job security
60 Control of schedule	Variable 5. Autonomy
61 Control of medical decision making	51 Control over workplace issues
62 Control over workplace issues	52 Control of medical decision making
Variable 7. Income and prestige	Variable 6. Income and prestige
70 Pay/benefits	61 Income and benefits
71 Pay relative to hours worked	62 Pay relative to what others make
72 Pay relative to what others make	63 Respect and status
73 Respect/status	Variable 7. Quality of care
Variable 8. Quality of care	71 Ability to provide quality care
80 Ability to provide quality care in current setting	Variable 8. Expectations
	81 Discrepancy between job expectations and experience

tice survey were triangulated with focus group responses to further assess validity and to clarify the experiences of each subgroup.

Modification of Physician Job Satisfaction Variable Set

Patterns, similarities, and differences in qualitative responses from the 1988 survey and 1995 focus groups were analyzed in monthly conference calls and in a modified Delphi technique during the investigators' meeting in November 1995, resulting in a revised variable set (MDSatR). Two coders then used MDSatR to code an independent second set of questionnaires from the 1988 study ($n = 144$). Response frequencies were found to be similar to those in the initial questionnaire analysis. A κ value of 0.61 was considered acceptable for this second analysis, although somewhat less than desired. This may have represented the coders' lack of familiarity with the revised coding scheme.

RESULTS

Large Group Practice Survey

As sources of satisfaction, physicians cited *day-to-day practice issues*, *relationships* with patients and colleagues, and positive aspects of *administrative issues* such as "concentration on patient care with management done by professionals." Physicians were dissatisfied with stress-related aspects of *day-to-day practice*, such as workload and patient volume. Future concerns emphasized the anticipated effects of managed care on physician relationships with colleagues and patients and the negative effects that an intensified focus on cost containment and productivity would have on the quality of care. Table 2 shows the rank ordering of these variables.

Table 2. Percentage of Physicians Making Comments About Satisfaction, Dissatisfaction, and Future Concerns in 1988 Large Group Practice Physician Survey ($N = 302$ Physicians)

Variable	Satisfaction, %	Dissatisfaction, %	Future Concerns, %
Relationships	36	22	20
Personal/family	10	5	15
Day-to-day practice	47	43	17
Administrative issues	15	34	30
Government issues	1	1	5
Autonomy	11	12	13
Income	10	16	14
Quality of care	8	2	18

Focus Groups

Managed care group participants discussed paperwork hassles and noted problems with continuity of care when patients switched plans. Women physicians emphasized the satisfaction from providing "total care" to their patients, but had concerns about workload, case mix, balance or role conflict, and delayed professional advancement. Minority physicians sought more like-minded colleagues and discussed the pressures of being a role model and of being "all things to all people." Inner-city physicians had a sense of "returning to one's roots" and expressed a strong sense of mission; major concerns included isolation and the "burden of caring." Table 3 is a tabulation of the comments made by physicians in the separate focus groups and shows the rank ordering of the variables.

Table 3. Components of Physician Job Satisfaction Identified by Physician Focus Groups

Variable	HMO, % ($n = 186$)*	Women, % ($n = 163$)	Minority, % ($n = 95$)	Inner-City, % ($n = 52$)
Relationships	45	42	53	42
Patients	23	20	23	23
Colleagues	18	18	26	2
Administration	4	4	4	17
Personal/family	10	14	16	15
Balance of work/family	4	12	3	4
Mission concordance	2	1	11	12
Day-to-day practice	14	20	6	10
Stress	3	9	0	2
Paperwork	5	4	2	0
Administrative issues	25	6	17	19
Government issues	1	1	0	4
Autonomy	3	6	0	2
Income/prestige	1	7	4	6
Quality of care	1	4	3	2

* n = number of comments.

MDSat was modified to MDSatR by expanding the variables on relationships, personal and family characteristics, and administrative and organizational issues. Government regulation was dropped, and a new variable ("expectations") was added to assess discrepancies between job expectations and experiences.

DISCUSSION

Previous research on physician satisfaction has suffered from using nonrepresentative physician populations,⁶ or has studied only limited facets of satisfaction.⁴⁻⁶ Our study provides a multidimensional taxonomy of satisfaction applicable to a variety of health care environments and relevant to the careers of special physician populations. It incorporates variables that reflect crucial contemporary concerns with productivity, cost containment, and the impact of variation in case mix.

Our findings suggest the following: (1) relationships and day-to-day practice issues are key components of physician satisfaction, and (2) different components of overall job satisfaction may be more or less relevant to specific physician subgroups. For example, balance of work and family commitments was an issue for women physicians, a sense of mission was important to minority and inner-city physicians, and administrative issues were relevant for those in managed care.

The strengths of our analysis include the use of national survey data, the ability to triangulate data from the quantitative aspects of the survey with open-ended responses from both survey and focus groups, and the use of homogeneous focus groups as a way of uncovering current satisfaction determinants of groups not usually represented. Our study is limited by the use of 1988 survey data obtained only from large group practice physicians, whose values and satisfaction issues may be different from those of currently practicing physicians in other practice types. Also, the model may not apply to all physicians (e.g., those in rural-based or solo practices).

Better understanding of physician satisfaction may improve retention and performance in clinical practice. Use of this model may allow managers of health care to better understand physician practice styles, to maximize quality of care, and to maintain a stable workforce. It is critical that the job experiences and values of currently practicing physicians be understood to maintain what is vital to those practitioners and to safeguard the profession and the health of the public.

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REFERENCES

1. Lewis CE, Prout DM, Leake B. How satisfying is the practice of internal medicine? *Ann Intern Med.* 1991;114:1-5.
2. Cohen AB, Cantor JC, Barker DC, Schuster AC, Reynolds RC. Young physicians and the future of the medical profession. *Health Affairs.* 1990;9:138-48.
3. DiMatteo MR, Sherbourne CD, Hays RD, et al. Physicians' characteristics influence patients' adherence to medical treatment: results from the Medical Outcomes Study. *Health Psychol.* 1993;12: 93-102.
4. Melville A. Job satisfaction in general practice: implications for prescribing. *Soc Sci Med.* 1980;14:495-9.
5. Stamps PL, Cruz NTB. *Issues in Physician Satisfaction.* Ann Arbor, Mich: New Perspectives in Health Administration Press; 1994.
6. Lichtenstein R. Measuring the job satisfaction of physicians in organized settings. *Med Care.* 1978;16:850.
7. Madison DL, Konrad TR. Large medical group-practice organizations and employed physicians: a relationship in transition. *Milbank Q.* 1988;66(2):240-82.
8. Konrad TR, Madison DL, Zavala E, Defriese GH. Managed care systems and transitions in large medical practices. In: *Proceedings Group Health Institute, 1988.* Chicago, IL: Group Health Association of America; 1989.
9. DeFriese GH, Konrad TR. The impact of financial and organizational changes on primary care. In: *Primary Care Research: An Agenda for the 90's.* Washington, DC: U.S. Dept. Health and Human Services, Public Health Service, Agency for Health Care Policy and Research; 1990:97-106.
10. Konrad TR, Kory WP, Madison DL, et al. The salaried physician: medical practice in transition. Final report developed under grant HS05557 for the Agency for Health Care Policy and Research. Chapel Hill, NC: Cecil Sheps Center for Health Sciences Research, University of North Carolina at Chapel Hill; 1989.
11. Pathman DE, Konrad TR, Ricketts TC. The National Health Service Corps experience for rural physicians in the late 1980's. *JAMA.* 1994;272:1341-8.
12. Schwartz MD, Linzer M, Babbott D, Divine GW, Broadhead E, and the SGIM Interest Group on Career Choice in Internal Medicine. Medical student interest in internal medicine. Initial report of the SGIM Interest Group Survey on factors influencing career choice in internal medicine. *Ann Intern Med.* 1991;114:6-15.
13. McMurray JE, Schwartz MD, Genero NP, Linzer M, for the SGIM Task Force on Career Choice in Internal Medicine. The attractiveness of internal medicine: a qualitative analysis of the experiences of female and male medical students. *Ann Intern Med.* 1993;119:812-8.
14. Schwartz MD, Linzer M, Babbott D, Divine GW, Broadhead WG. The impact of an ambulatory rotation on medical student interest in internal medicine. *J Gen Intern Med.* 1995;10:542-9.
15. Miles MB, Huberman AM. *Qualitative Data Analysis.* Thousand Oaks, Calif: Sage Publications; 1994.
16. Crabtree BF, Miller WL, eds. *Doing Qualitative Research. Research Methods of Primary Care.* Vol. 3. Thousand Oaks, Calif: Sage Publications; 1992.