

The Family in Family Practice: Is It a Reality?

Jack H. Medzitz, MD, MPH; Stephen J. Zyzanski, PhD; Doreen Langa, BA; and Kurt C. Stange, MD, PhD
Cleveland, Ohio

BACKGROUND. The purpose of this study was to describe, from multiple perspectives, the extent to which community family physicians focus on the family.

METHODS. In a cross-sectional study, research nurses directly observed consecutive patient visits for 2 days in the offices of 138 community family physicians. Data were collected on 4454 outpatient visits using direct observation, patient and physician questionnaires, and medical record review. Descriptive statistics were calculated, and a factor analysis was used to identify subsets of correlated family focus descriptors.

RESULTS. On average, 10% of the time intervals during patient visits was devoted to addressing family issues. Other family members were present during 32% of visits, and another family member's problems were discussed in 18% of visits. Seventy percent of patients reported that other family members see the same doctor. A family history was obtained during 51% of visits by new patients and 22% of visits by established patients. Genograms were present on 11% of charts and family folders were seldom used. The presence or absence of a family history of breast or colon cancer was noted in 40% of charts. A factor analysis identified two different physician styles: family history as a context for care of an individual patient, and the family as the unit of care. The latter approach correlated with the patient's assessment that the doctor knew their families.

CONCLUSIONS. Family physicians show a high degree of emphasis on the family, and exhibit two different styles of family focus in community practice. The effects of these different approaches to family care on patient outcomes is an important area for future research.

KEY WORDS. Primary health care; physicians, family; family health; factor analysis, statistical; physician's practice patterns. (*J Fam Pract* 1998;46:390-396)

Wany force has led to the development of family practice as an independent specialty, distinct from general practice.^{1,2} One of the central concepts of the new specialty was that the unit of care should be the individual in his or her intimate environment, usually the family.^{3,4} An emphasis on "care in the context of family and community" has recently been reaffirmed by the Institute of Medicine as one of the fundamental tenets of primary care.⁵

In theory, this family orientation was envisioned by some to be one of the mainstays of family practice, distinguishing it from other primary care disciplines.⁶ In reality, however, this concept has had a mixed reception and variable integration into family practice education.⁷

All medical disciplines are facing increasing pressure to document the efficacy and cost-effectiveness of even well-established approaches to patient care.^{8,9} Despite much good research on the association

between family characteristics and health,¹⁰ research on outcomes of a family focus in family practice has been limited by a dearth of measures of family orientation and the inherent difficulties of family research. Thus, it is important to detail the extent to which a family orientation is being practiced in actual community-based family practices, and to assess the effects of this orientation in our changing medical system. Does a family orientation lead to improved medical care, better doctor-patient relationships, increased preventive care, and lowered costs?

In this study we have taken the first step toward answering these questions by describing family physicians' focus on the family as assessed from multiple sources. These descriptive results were subjected to a factor analysis to determine whether the physician's family focus is a uniform entity or whether there are distinctly different approaches to incorporating the family in family practice.

METHODS

STUDY DESIGN AND SAMPLE

This study was part of the Direct Observation of Primary Care (DOPC) study, a cross-sectional study of the content of outpatient visits to family physicians in northeast Ohio. The reliability and validity of the methods, instruments, and sampling techniques have been described in detail elsewhere.¹¹ Briefly, 138 community family physicians

were visited by a team of research nurses while providing outpatient care on 2 separate days. The patient sample consisted of consecutive patients seen during the 2 days of observation. Patients were informed about the study in the waiting room prior to meeting with their physicians, and were enrolled if they gave verbal informed consent. The patient participation rate was 89%.

DATA COLLECTION

The research nurses collected data on the content and context of family practice using multiple methods, including direct observation of the patient visit, medical record review, patient exit questionnaire, physician questionnaire, and a practice environment checklist.

The research nurses directly observing the patient visit completed a checklist that assessed whether a family history was performed, whether another family member was present, and whether another family member's problem was discussed during the visit.

In addition, the way in which time was spent during the visit was measured with the Davis Observation Code (DOC). The DOC categorizes time use into 20 different behavioral categories during 15-second observation and 6-second recording intervals.¹² These data were used to determine the length of the visit and the proportion of time spent discussing family issues.

The medical record was used to measure the extent to which family medical history and social history were noted in the chart for the observed visit and during the past year. The presence or absence of a genogram in the medical record was noted, as was whether the medical record contained notation of the absence or presence of a family history of breast cancer, colon cancer, or alcohol abuse.

The patient exit questionnaire assessed the patient's report of whether a family history was taken during the visit and within the past year, whether the patient's family medical history was discussed elsewhere within the previous year, and whether other family members were patients of the physician. Patients also were asked to rate, on a 5-point Likert-type scale, the degree to which they agreed with the following statement: "This doctor knows a lot about the rest of my family." Finally, patients who were currently pregnant were asked if the physician had discussed individual family problems within the past year.

The physician questionnaire asked if the physician performed prenatal care and deliveries. Physicians were asked to rate the degree to which they "focus on the family as the unit of care," assessed by a 5-point Likert-type scale. Physicians were also asked to rate their satisfaction with their own family and leisure time. Finally, physicians were asked to estimate the percentage of patients who they periodically counsel about familial or genetic diseases.

The practice environment checklist assessed the use of family charts. Furthermore, nurses rated physicians on

their degree of "focus on the family" with a 5-point scale.

ANALYSES

Descriptive statistics were calculated with physicians as the units of analysis. When a patient was the unit of analysis, the sample was stratified by status (new vs established patients) as assessed by the medical record. Forty-one patients' information regarding their status as new or established patients were excluded. Analyses involving new and established patients stratified for continuous variables and chi-square statistical variables.

FACTOR ANALYSIS

The purpose of factor analysis is to reduce the number of variables in an original number of measures to a smaller set of new composite measures (factors) without loss of information.¹³ To determine whether a set of physician styles could be ascertained, items collected for this study, a principal component analysis with orthogonal rotation was performed. Items with physicians as the unit of analysis were selected based on information, data on all patients' physician were represented by a mean for each physician. Fourteen items were chosen to represent family-oriented care, as well as the doctor's assessment of it. Two criteria were used to determine the number of factors needed to describe the correct items. Factors were retained only if they explained significant (eigenvalues > 1.0) and commensurable, as assessed by Cronbach's internal reliability coefficient alpha. Because of the unreliability of the alpha statistic, Cronbach's alpha statistic was accepted as evidence of adequate internal reliability. In defining a factor, only items exhibiting a significant correlation ($r > 0.40$) with the factor were retained.

RESULTS

The characteristics of the physician and patient samples have been described in detail elsewhere.¹¹ Physicians were demographically similar to members of the American Academy of Family Physicians, but represented demographic trends in having more residents, female physicians.¹⁴ Table 1 shows findings from observation of 4454 patient visits. New patients accounted for 9% of all visits. On average, 10% of the time during patient visits involved family issues, during 32% of visits. Other family members were present during 11% of new and 22% of established patient visits. The encounter in 32% of patient visits had other family members was highest when younger than 17 years of age. Another for

TABLE 1

Variable	New Patient % or Mean (No.)†	Established Patient % or Mean (No.)†
Description of the Family's Importance in Family Practice Office Visits, by Direct Observation		
Percent of visit time spent in discussing family issues, mean*	14 (373)	10 (4028)
Family history taken, %	51 (981)	22 (4073)
Family history taken for symptoms, %	13 (381)	6 (4073)
Other family members present, %*	32 (376)	32 (4009)
Other family member present, by patient age in years, %		
5-6	95 (40)	95 (439)
7-12	100 (20)	97 (212)
13-17	77 (22)	73 (202)
18-65	14 (257)	12 (2336)
2-65	26 (35)	26 (894)
Other family member's problem discussed, %	17 (359)	18 (3329)

*Calculated using the Date Observation Code. †Sample sizes vary slightly because of missing data.

problem was discussed in 18% of all visits. Chart audits corroborated that a family history was noted for the observed visit in more than 50% of new patients (Table 2). However, only 6% of established patients had such documentation (vs 22% by direct observation), indicating that the taking of additional family history in established patients is underreported in the medical record. Genograms were noted in 13% of the charts of new patients and 11% of established patients. Sufficient detail in the medical record was available to ascertain the absence or presence of a family history of breast cancer, colon cancer, or alcohol abuse in approximately 40% of charts.

The percentage of other family members seeing the patient's doctor was high: 72% for established patients and 60% for new patients (Table 3). Established patients only moderately agreed (mean of 3.5 out of 5.0) that their doctor knew a lot about their families, even though 50% of these patients had been a patient of this doctor for at least 4 years. Eleven percent of established patients reported that the doctor had established family medical history on the observed visit. This is in contrast to 22% when

measured by direct observation. Two of every three pregnant women reported that they had received counseling regarding inherited family problems.

Only one of three physicians reported performing prenatal care and one in five reported performing deliveries (Table 4). Physicians rated the extent to which they focus on the family as the unit of care with a mean rating of 3.7 out of a possible 5.0. There was considerable variability, however, with responses representing the entire range from 1 (very little) to 5 (very much). Sixty percent of physicians gave a rating of 4 or 5, indicating a strong family focus. Physicians rated satisfaction with their own family and leisure time activities with a mean of 3.1.

The research nurses rated the physicians' degree of focus on family as the unit of care as moderately high. The nurses' mean rating of 3.8 was comparable to the physicians' mean self-rating of 3.7. However, the nurses' ratings of the physicians' knowledge of patients as people was considerably higher (4.1) than the physicians' rating of their awareness of patients' lifestyles and values (3.3).

Three meaningful factors emerged from the factor analysis of physician-level variables (Table 5). The first was defined by six items. By focusing on the content of the items with the highest loadings, it was determined that this factor reflected a physician's general tendency to place a greater emphasis on family as the unit of care. This factor was labeled "family orientation," and accounted for 13% of the total variance.

The second factor was defined by ten items, for which the central theme is an emphasis on family medical history as a source of contextual information about the patient. This factor was labeled "family history," and accounted for 11% of the total variance. The final factor was defined by two

TABLE 2

Description of the Family's Importance in Family Practice Office Visits, by Chart Audit

Variable	New Patient % (No.)	Established Patient % (No.)
Family history noted during observed visit	66 (378)	8 (4035)
Family history noted during past year	0 (378)	25 (4035)
Genogram present on chart*	13 (185)	11 (2097)
Notation of absence or presence of family history of:		
Breast cancer	38 (191)	40 (2142)
Colon cancer	38 (191)	39 (2142)
Alcohol abuse	36 (191)	33 (2142)

*Assessed for round 2 patients only.

TABLE 3

Description of the Family's Importance in Family Practice Office Visits, by Patient Exit Questionnaire

Variable	New Patient % or Mean (No.)	Established Patient % or Mean (No.)
Other family members see this doctor, %	60 (199)	72 (2715)
Agreement with statement, "The doctor knows a lot about my family," mean	2.8 (199)	3.5 (2734)
Doctor discussed family medical history during office visit, %	40 (239)	11 (3031)
Doctor discussed family medical history in past year, %	0 (233)	32 (3039)
Family medical history discussed elsewhere in past year, %	11 (233)	6 (3039)
Doctor discussed inherited family problems this year, %†	0 (1)	67 (21)

*Measured on a 5-point Likert-type scale, where 1=very little, 5=very much. †Assessed on a 5-point Likert-type scale, where 1=very unsatisfied, 5=very satisfied.

TABLE 4

Physicians' Focus on the Family, by Self-report and Nurses' Observation

Variable	% or Mean (No.)
Physician Self-report	
Performs prenatal care, %	34 (128)
Performs deliveries, %	21 (128)
Focus on the family as the unit of care, mean*	3.7 (128)
Satisfaction with own family and leisure time, mean†	3.1 (127)
Patients who receive periodic counseling about hereditary or genetic disease, %	43 (121)
Nurses' Observations	
Family chart present, %	2 (128)
Nurse rating of physician's focus on family as the unit of care, mean†	3.8 (134)

*Measured on a 5-point Likert-type scale, where 1=very little, 5=very much. †Measured on a 5-point Likert-type scale, where 1=very unsatisfied, 5=very satisfied.

related items that identify physicians' variables and those who perform prenatal care was labeled "obstetrical care," and for 10% of the total variance. Clearly, among the three factor scores were low (all less than $r = 0.10$). This indicates factors and their estimated scores are independent; physicians scoring high on one level of the other two aspects of family

DISCUSSION

Our study presents previously unavailable information on the family focus of community physicians. Overall, the findings show a degree of emphasis on the family, as measured from multiple viewpoints. As Fischer¹⁰ et al. state, "family is alive and well in clinical practice, practicing physician knows."

FAMILY HISTORY

Practicing clinicians also know that family history is an important and fundamental aspect of a family orientation and component of care.¹¹ Therefore, it is interesting that the major patients had family history information recorded because of specific symptoms, but most formed a routine new patient contact.

For established patients, family history was 22% of observed visits, but very little of this information was recorded for that visit. Indicating that family physicians try to remember much of information from known patients. The rate of information for three specific families (colon cancer, breast cancer, and alcohol abuse) is startling. However, the emerging genetic screening¹² will require more widespread and the family history documentation.¹³ Family physicians have to be at the forefront of efforts to identify families who could benefit from genetic screening. Three efficient methods of gathering family history and presenting that information in ways that facilitate pattern recognition (ie, a genogram) will be helpful.

Only 11% of patients had a family tree or genealogical chart. This means that most family histories obtained without the visual aid of a genogram, a more accurate, and easier to maintain, once the has become accustomed to using this tool.¹⁴ The Wisconsin family physicians' study¹⁵ and other studies¹⁶ have shown that the use of genograms into programs for faculty, residents a

students with mixed results. Our findings show that this potentially useful tool is being used only to a limited degree in community practices. Perhaps a simpler form of genogram incorporating basic demographic, mortality and morbidity data could be used for all patients. More details of relationships, cases, and so forth could be added over time when clinically indicated, similar to the way that many clinicians use preventive services or chronic disease management flowcharts. Our findings also show a high rate of gathering family information that is not subsequently documented in the medical record. This family information could be easily added to a rudimentary genogram. If one were created for all new patients, this scheme might make genograms easier for busy practitioners to accept and use.

FAMILY MEMBERS

Rogers and Holloway² noted that a substantial proportion of patients will have someone with them in the waiting room, and the companion will expect to be in the examination room with the patient for the physician visit.² Similarly, Botelho, et al.³ found that 39% of patients came to a family medical center with a family member or friend, and two thirds (29%) of these accompanied the patient into the examination room. In the present study, 32% of the patients had another family member present while being seen by the physician. This number was greater than 98% for patients younger than 13 years of age, 73% for patients 13 to 17 years of age, dropped to 12% to 14% for the 18 to 65 age group, but increased to 26% for those older than 65 years.

Discussions by the physician of other family members' problems occurred in 18% of all directly observed visits. This significant number shows that family physicians frequently focus on the family as the unit of care.⁴ The discussion of other family members' problems during a

TABLE 5
Underlying Factors of the Physicians' Degree of Focus on Family and Their Associated Family Item Indicators

Abstracted Item	Family Orientation Factor	Family History Factor	Obstetrical Care Factor
The doctor knows a lot about my family	.79	.19	.
Other family members see the doctor	.72	.26	.
The spent discussing family issues	.40	.34	.
Focus on family as unit of care	.38	.	.
Other family members' problem discussed	.33	.19	.
Family chart present	.23	.	.
Family history in chart noted during past year	.	.72	.
Family history performed on observed visit	.	.59	.
Parent report of family history discussed during past year	.	.46	.
Genogram present in chart	.	.29	.
Percent patients counseled about familial or genetic diseases	.	.25	.
Record of family history of breast cancer, colon cancer, alcohol abuse	.	.18	.
Physician performs deliveries	.	.	.92
Physician performs prenatal care	.	.	.80
Alpha reliabilities	.081	.056	.055
Total variance, %	13	11	10

²Factors nonsignificant factor loadings.

patient's visit is the subject of a separate paper in this special issue of the *Journal*.⁵ Mervel et al.⁶ found that the presence of another family member increased the rate of discussion of a family context by the physician. Furs and Knaflhovy⁷ found that in 19% of their child consultations (child accompanied by a parent), they classified the parent as a patient and not just as a parent of a patient.

Our study shows that most patients have other family members seen by the same physician. That multiple family members use the same physician should result in the physician's knowing more about the family. This may also depend on the length and strength of the doctor-patient relationship.⁸ Managed care could potentially enhance

a family orientation by encouraging enrollment of family members with a single family physician. However, this potential benefit of managed care will require changes in the frequent bidding of health care contracts that is currently engendering forced disruption in continuity of care.⁹

OBSTETRICAL CARE

Many factors including rising costs of malpractice insurance,¹⁰ community need and local expectations,¹¹ and the lifestyle and personal preferences of physicians¹² have contributed to a decrease in deliveries performed by family doctors.¹³ Our study found that 21% of the physicians interviewed delivered babies. This figure is comparable to a national figure of 26%.¹⁴ The rate of performance of obstetrics in our sample is lower than the national averages (but slightly higher than the rate in Ohio), and speaks to the lower rate of obstetrics performance in the northeast and north central United States.¹⁵ The somewhat higher rate (34%) of physicians performing prenatal care in our sample shows that some physicians who do not wish to perform deliveries may be gaining the practice and patient benefits of shared maternity care.¹⁶

FACTOR ANALYSIS

The results of the factor analysis show that the community family physicians in this study exhibited two different types of family focus (in addition to whether they perform obstetrics). These foci appear to represent different approaches to the family in family practice, as either (1) a source of contextual information about the patient or (2) as a focus of care.

The obstetrics factor reflects the situation of most of the physicians in our area giving prenatal care and delivering babies. Although physicians performing obstetrical care are involved in these important life events of families, it does not seem to increase their knowledge of or involvement with the families of nonpregnant patients. The evidence for this comes from the lack of correlation between the factor scores for the obstetrical factor and the two factors describing family as a focus of care.

The family history factor seems to indicate an approach in which the physicians obtain a great deal of history and knowledge (Contextual Information) about the family, record it in the charts, but rarely use this information to delve deeper into family problems. Consistent with this interpretation is the patient's belief that these physicians do not "know a lot about my family" despite any family history-taking or genograms. These results are consistent with the findings of Rogers et al.²

The family orientation factor denotes those physicians who focus on the family as the unit of care, have more than one family member as patients, discuss other family members' problems, use a family chart,¹⁷ and whose patients believe that they "know a lot about my family." These physicians appear to emphasize family care without nec-

essarily taking a great deal of care with family members, and so forth.

The physicians in both these groups spend consulting family history on the family history, observe and record interpersonal events, the family group appears to deal more directly with family issues, or with other concerns of the patients seen by the physician in the orientation group have a good knowledge of the comparison with the family history group. It has confirmed in other studies, it has important implications for our educational, clinical practice, and research.

STIMULATORS

Our data support the hypothesis that the family and well in family practice. These data appear to be two different styles of family focus: namely practice, as ascertained by the presence of family history, and as ascertained by the presence of family history. These different foci family orientation and family history may have different correlates and different implications for patient outcomes. This is an important further study.

REFERENCES

1. Carmichael LP. The family in medicine. *Process Fam Pract* 1976; 6:262-4.
2. Stephens GG. The medical care of the family. Tucson, Ariz: Winter Publishing Co, 1982.
3. Curry HR. The family as our patient. *J Fam Pract* 1982; 15:100-1.
4. Benson DC. The evolution from an individual approach to a family approach in general practice. *N Engl J Med* 1981; 304:1401.
5. Christie Seelye J. Teaching the family systems concept by medicine. *J Fam Pract* 1981; 13:381-401.
6. McDaniel S, Campbell TL, Seagunm DJ. Family history care: a manual for medical providers. New Springfield, Va: 1980.
7. Institute of Medicine. Primary care: America's health care challenge. Washington, DC: National Academy Press; 1981.
8. Gorman JP. The family as the object of care in family medicine. *J Fam Pract* 1977; 6:571-5.
9. Madala JH. Family medicine principles and Baltimore, Md: Williams & Wilkins, 1978; 329-330.
10. The state of the art of behavioral science in family medicine. *Behav Sci Health Care* 1978; 1:1-10.
11. Report of the Task Force on Behavioral Science Research of the Teachers of Family Medicine, 1971.
12. Boschert JH. Quality of family care. Part 3: Improving of care. *N Engl J Med* 1966; 335: 1089-2.
13. Angel M, Kasser JP. Quality and the medical in following elephants. *N Engl J Med* 1966; 335:883-5.
14. Campbell TL. Family's impact on Health MDHHS. *Doc (ADM)* 86-1461. Washington, DC: Superintendent of Documents, US Government Printing Office; 1986.
15. Searge KC, Zyzanski SJ, Feduzo-Smith T, et al. Medical records and patient questionnaires for family and health services. *Fam Med Care* 1986; in observation of patient status. *Fam Med* 1986; 18:39-42.
16. Searge KC, Zyzanski SJ, Jean CR, et al. Unpublished work: a description of 464 family history records. *J Fam Pract* 1986; 18:637-89.

16. Callahan EJ, Bertakis KD. Development and validation of the Davis Observation Code. *Fam Med* 1991; 23:19-24
17. Nunnally JC. *Fundamentals of factor analysis*. In: Psychometric theory, 3rd ed. New York, NY: McGraw-Hill, 1969.
18. American Academy of Family Physicians. *Facts about family practice*. Kansas City, Mo: AAFP, 1996.
19. Fischer PM. The family in family medicine revisited again... and again. *J Fam Pract* 1994; 39:533-9.
20. Crouch MA, Thedke CC. Documentation of family health history in the outpatient medical record. *J Fam Pract* 1986; 22:169-74.
21. Lemman C, Narod S, Schuman K, et al. BRCA1 testing in families with hereditary breast-ovarian cancer. *JAMA* 1996; 275:1885-92.
22. National Cancer Institute. *Understanding gene testing*. NIH Publication No. 96-3905. Bethesda, Md, December 1995.
23. American Society of Clinical Oncology. *Statement of the American Society of Clinical Oncology: genetic testing for cancer susceptibility*. *J Clin Oncol* 1996; 14:1730-6.
24. Garber JE, Schrag D. Testing for inherited cancer susceptibility. *JAMA* 1996; 276:1928-9.
25. Johnson N, Lancaster T, Fuller A, Hodgson SV. The prevalence of a family history of cancer in general practice. *Fam Pract* 1995; 12:287-9.
26. Touche N, Holtzman NA, Davis JG, Feehan S. Toward the 21st century: incorporating genetics into primary health care. Plainville, NY: Cold Spring Harbor Laboratory Press, 1997.
27. McCray SV, Allen B, Moseley R, et al. *Ethical and practical implications of the human genome initiative for family medicine*. *Arch Fam Med* 1993; 2:1158-63.
28. Doukas DJ. Primary care and the human genome project. *Arch Fam Med* 1993; 2:1119-25.
29. Geller G, Tambor ES, Chase GA, Hoffman KJ, Faden RR, Holtzman NA. Incorporation of genetics in primary care practice. *Arch Fam Med* 1993; 2:1119-25.
30. McGoldrick M, Gerson R. Why genograms? In McGoldrick M, Gerson R, eds. *Genograms in family assessment*. New York, NY: WW Norton, 1985.
31. North S, Marvel MK, Hendricks B, Morphew P, North D. Physician usefulness ratings of family-oriented clinical tools. *J Fam Pract* 1993; 37:30-4.
32. Crouch MA, Davis T. Using the genogram (family tree) clinically. In Crouch MA, Roberts L. *The family in family practice*. New York, NY: Springer-Verlag, 1987.
33. Shore WB, Wilkie HA, Croughan-Minhane M. Family of origin: genogram evaluation of a teaching program for medical students. *Fam Med* 1994; 26:238-43.
34. Like RC, Rogers J, McGoldrick M. Reading and interpreting genograms: a systematic approach. *J Fam Pract* 1988; 26:407-12.
35. Rogers J, Holloway R. Family escorts of clinic patients [letter]. *J Fam Pract* 1997; 44:213.
36. Bothello RJ, Lue B-H, Piscella K. Family involvement in routine health care. *J Fam Pract* 1996; 42:572-6.
37. Schmidt DD. The family as the unit of medical care. *J Fam Pract* 1990; 30:697-703.
38. Flocke SA, Goodwin MA, Stange KC. The effect of a secondary patient on the family practice visit. *J Fam Pract* 1998; 47:303-5.
39. Marvel MK, Schilling R, Doherty WJ, Baird MA. Level of physician involvement with patients and their families. *J Fam Pract* 1994; 39:535-544.
40. Furst A, Krushkowsky B. Adults who accompany their children to the family physician in Israel: parents or patients? *Isr J Med Sci* 1991; 27:224-7.
41. Rosenberg EE, Pless JB. Clinicians' knowledge about families of their patients. *Fam Pract* 1985; 2:23-9.
42. Flocke SA, Stange KC, Zyzanski SJ. Insurance type and forced discontinuity: impact on delivery of primary care. *J Fam Pract* 1997; 45:129-35.
43. Rosenblatt RA, Weitkamp G, Lloyd M, Schifer B, Winterscheid LC, Hart LG. Why do physicians stop practicing obstetrics? The impact of malpractice claims. *Obstet Gynecol* 1990; 76:245-50.
44. Bredfeldt R, Collier JA, Wesley RM. Present status of obstetrics in family practice and the effects of malpractice issues. *J Fam Pract* 1989; 28:294-7.
45. Rosenblatt RA, Wright L. Rising malpractice premiums and obstetrical practice patterns. *West J Med* 1987; 146:246-8.
46. Nesbit TS, Arevalo JA, Tanji JL, Morgan WA, Aved B, Will family physicians really return to obstetrics if malpractice insurance premiums decline? *J Am Board Fam Pract* 1992; 5:413-8.
47. Smith MA, Green LA, Schwank TL. Family practice obstetrics in Michigan: factors affecting physician participation. *J Fam Pract* 1989; 21:433-47.
48. Grumbach K, Vranizan K, Rennie D, Luit HS. Charges for obstetric liability insurance and discontinuation of obstetric practice in New York. *J Fam Pract* 1997; 44:61-70.
49. Roberts RG, Bobula JA, Wolkowicz MS. Why family physicians deliver babies. *J Fam Pract* 1998; 46:34-40.
50. Schwartz RW, Simpson WG, Stodel WE, Jarecky RK, Griffen WO, Young AB. Career change: in quest of a controllable lifestyle. *J Surg Res* 1989; 47:189-92.
51. Rosenblatt RA, Detering B. Changing patterns of obstetric practice in Washington State — the impact of tort reform. *Fam Med* 1988; 20:101-7.
52. Family physicians and obstetrics, a professional liability study. Kansas City, Mo: American Academy of Family Physicians, 1987.
53. Kahn NB, Schmitting G. Obstetric privileges for family physicians: a national study. *J Am Board Fam Pract* 1996; 8:120-7.
54. Lantmore WL. Shared antenatal care: an improved paradigm for women's health care. *J Fam Pract* 1998; 46:31-3.
55. Rogers JC, Rohrbauhn M. The SAGE-PAGE trial do family genograms make a difference? *J Am Board Fam Pract* 1991; 4:319-26.
56. Christie-Seeley J. The family as a system. *J Royal Soc Med* 1985; 78 (suppl): 5-10.
57. Farley ES, Schneeweiss R. Is it worthwhile to file by family folders? An affirming view. *J Fam Pract* 1990; 30:697-703.