Who Is the Family Doctor? Relating Primary Care to Family Care

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Many families receive care as intact family units. To determine which specialists provide this family care, a subset of families (N = 447) enrolled in the Rand Health Insurance Experiment were examined. Among families designating a single primary care physician, family physicians and general practitioners provided 65.9% to 89.7% of their family care. Internists provided 20.0% and 27.3% of family care for younger and older couples, respectively. The remaining specialties, including pediatrics and obstetrics-gynecology, each provided less than 5% of family care; these small proportions of family care may reflect the specialists' self-imposed limits in primary care roles. As family members matured, families used fewer pediatricians and obstetrician-gynecologists for primary care and concurrently increased their use of family physicians or general practitioners. Care for intact families is provided predominantly by family physicians or general practitioners, although in families without children, internists also play an important role. Self-defined limits in primary care roles by physicians in various specialties and the changing use of specialties during the family life cycle largely determined which specialties provided family care.

The family unit plays an important role in providing health care to family members. Illness afflicting an individual can dramatically affect the functioning of the family unit. Conversely, the family unit influences the health of its individual members.[1] Health-care-seeking behavior by an individual is related to the family's structure and patterns of use.[2,3] The family unit can also be mobilized to beneficially influence the course of illness in an individual such as in the treatment of hypertension.[4,5]

Involving the family in the health care process has been given special emphasis by the specialty of family practice. This involvement has generally been interpreted by family physicians as treating individuals within the context of their family. It is not, however, unique to family practice; pediatricians, in treating children, for example, interact with parents and must consider the family situation.[6]

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An alternative view of family care is treating the family as an intact unit. Family practice, the only specialty trained to provide primary care for men and women of all ages, is in a unique position to provide this type of family care. Yet this view of family care has received much less emphasis. The impact of early studies that showed that physicians were not taking care of families as intact units may have contributed to less emphasis being placed on treating intact family units.[7,8] A recent study,[9] however, has provided strong evidence that many families do receive care from a single primary care physician.

With a single physician providing care to more than one family member, the opportunity exists for information to be shared across visits by family members. This sharing of information is analogous to continuity of care, in which information is shared across visits by an individual; continuity of care has been shown to have a beneficial impact upon use of services, satisfaction, and health care outcomes.[10] It remains to be seen whether a physician providing medical care for family members can effectively use shared information to improve care for an individual family member.

For the specialty of family practice, which has the great-

est interest in and potential for applying shared family information, a fundamental question remains: Do family physicians provide family care? While research has shown that families often see a single physician, it may be that physicians in specialties other than family practice are equally or more likely to be providing family care. Before further efforts are invested into developing shared family care interventions, it would be important to know which specialties provide family care.

In this study, a subset of families enrolled in the Rand Health Insurance Experiment (HIE) were examined to determine which specialties provided family care. Because changing primary care needs for the family could result in the use of different specialties, specialties providing family care during progressive stages of the family life cycle were also determined.

METHODS

The demographic and visit information for this study comes from a subsample of the 2005 families enrolled in the HIE study from 1974 through 1982 (70% were enrolled for 3 years, the remainder for 5 years). Families had been randomly selected from six sites (Georgetown County and Charleston, South Carolina; Franklin County and Fitchburg-Leominster, Massachusetts; Seattle, Washington; and Dayton, Ohio) representing the four census regions of the country. Populations in the sites varied from 34,000 to 1.2 million. The families were representative of the sites with respect to age, sex, race, education, family income and structure, health status, and previous use of health services. Low-income families were mildly oversampled, however, and families with incomes in the highest 5% of the population and individuals older than 62 years were excluded.[11-13]

Three family types were selected for this study to represent different stages in the family life cycle: younger married couples (aged 18 to 35 years) without children at home, married couples (aged 18 to 50 years) with one or two children younger than 18 years old at home, and older married couples (aged 50 to 62 years) without children at home. Families limited in their selection of providers because of enrollment in the health maintenance organization plan were excluded.

At enrollment, approximately 60% of the HIE families were randomly selected to undergo a multiphasic screening examination. Each family member designated a physician to whom results would be shown without restrictions. The designated physician was defined as that individual's "primary care physician," a more accurate indicator of the primary care physician than the most commonly used alternative indicator, "physician visited most often."[7,8] The screening examination physician not only represented a specific designation by the individual, but also fulfilled more of the primary care functions, remained more stable over time, and could be uniquely identified. Further, patients often do not have a most-visited physician because they either do not visit any physicians or have visited two or more physicians the same number of times.[9,14] (A parallel analysis performed using the physician visited most often to define the primary care physician showed similar results and therefore was not included in this report.) Thus, family care, treating the family as an intact unit, was operationally defined as the proportion of family members who shared the same primary care physician as the female head of the family. This operational definition emphasizes the primary care aspect of family care.

To determine the specialty of those physicians who had provided primary and family care, their unique identifier codes were matched with those in the 1976 American Medical Association Physician Masterfile. For physicians not listed in this database, the 1982 *American Medical Directory*,[15] 1985 *Directory of Medical Specialists*,[16] 1983 *Directory of Osteopathic Physicians*,[17] and 1981 *American Psychological Association Directory*[18] were searched for providers with matching names and addresses. Generalists were designated as physicians who listed specialty areas in family or general practice, internal medicine, or pediatrics, and were either noncertified or had a single board certification in family practice, pediatrics, or internal medicine. Board-certified family physicians and non-board-certified

TABLE 1. DISTRIBUTION OF FAMILIES BY THE PROPORTION OF FAMILY RECEIVING FAMILY CARE[9]

Family Care Received	Young Couples No. (%)	Families with Children No. (%)	Older Couples No. (%)	All Families No. (%)
Complete family care (2 of 2, 3 of 3, 4 of 4 members)*	47 (68.1)	106 (34.2)	50 (73.5)	203 (45.4)
Partial family care (2 of 3, 2 of 4, 3 of 4 members)*		113 (36.4)		113 (25.2)
No family care (1 of 2, 1 of 3, 1 of 4 members)*	22 (31.9)	91 (29.4)	18 (26.5)	131 (29.3)
Totals	69 (100)	310 (100)	68 (100)	447 (100)

** Proportion of family members sharing the same screening examination physician as the female head. (By definition, each family has at least one member, the female head, using this physician)*

TABLE 2. SPECIALTY OF PHYSICIANS (percentage) FOR FAMILIES RECEIVING COMPLETE FAMILY CARE*

Specialty of Family Care Physician	Families Young Couples (n=44)	Families with Children (n=97)	Older Couples (n=45)	All Families (n=186)
Generalists	93.2	94.8	91.1	93.5
Family–general practice	65.9	89.7	71.1	79.6
Internal medicine	27.3	4.1	20.0	13.4
Pediatrics	0.0	1.0	0.0	0.5
Nongeneralists	6.8	5.2	8.9	6.5
Medical subspecialties	0.0	0.0	4.4	1.1
Obstetrics-gynecology	4.5	0.0	0.0	1.1
Surgery	2.3	4.1	4.4	3.8
Other specialties	0.0	1.0	0.0	0.5
Totals	100.0	100.0	100.0	100.0
Number undetermined†	3	9	5	17

** All family members sharing a single primary care physician*
† Number of physicians not specifying specialty preference, not listed to physician directories, or not individually identified (ie, listed as a group practice or clinic)

general practitioners were combined after separate analyses did not demonstrate any significant differences between the two groups. Board-certified family physicians made up approximately one third of the combined group. Physicians were labeled nongeneralists if they listed other specialty areas or had attained board certification prior to the study period in areas other than family practice, internal medicine, or pediatrics. The specialty for 91.4% and 91.6% of the primary and family care physicians, respectively, was identified using this method.

The relative availability of specialists within each site was determined by counting the specialties listed in the 1982 *American Medical Directory*[15] and dividing by the total number of physicians for each site. The specialties used for primary and family care were then compared with their relative availability.

Comparisons between groups were analyzed using chi-square tests and percentage differences (Δ%) with 95% confidence intervals (95% CI).

RESULTS

Previously reported results from the Rand study demonstrating the number of family members receiving family care (ie, sharing primary care physicians) are summarized in Table 1.[9] The percentages of families with all members sharing a single physician were 68.1% for younger couples, 34.2% for families with children, and 73.5% for older couples. Overall, 45.4% of families received complete family care.

For each of the families receiving complete family care, the specialty of their family physician was determined (Table 2). Generalists provided complete family care for 93.5% of all families. Family physicians and general practitioners were the most frequent providers of family care for younger and older couples, 65.9% and 71.1%, respectively. Among families with children, family physicians and general practitioners provided an even higher proportion, 89.7%, of family care. Internists were important providers of complete family care only for couples without children, providing 27.3% of family care for younger couples and 20.0% for older couples. No other specialty provided complete family care for more than 5% of the families.

Table 3 summarizes the specialties providing primary care for all individuals. Similar to the pattern for complete family care, generalists provided most of the primary care. The patterns differed, however, in several important respects; the greatest discrepancies occurred among specialties aimed at specific age groups or sexes. Pediatricians provided primary care for 52.0% of children, yet provided only 1.0% of complete family care for their families. Obstetrician-gynecologists similarly provided primary care for 15.6% of female heads of the families in younger couples and 20.6% in families with children, yet only 4.5% and 0.0% of these families, respectively, received family care from an obstetrician-gynecologist. Only 3.7% of female heads of families in older couples received primary care from obstetrician-gynecologists.

Specialists may be limited in providing family care because they provide primary care only to one age group or sex. Internists were found to provide primary care for only 2.0% of children (these children were all 9 years of age or older), thus limiting their role in family care to families without children. Similarly, pediatricians provided primary care for only four adults, and obstetrician-gynecologists provided primary care for only five male heads of families and one child. Both of these specialties provided almost no family care. Pediatricians did, however, provide shared care for children. In 88.1% of two-child families, both children shared the same primary care physician; one half of these physicians were pediatricians, while most of the remainder were family physicians or general practitioners. In contrast to these other specialties, family physicians and general practitioners, who generally do not limit their patients to specific ages or sex, took care of female and male heads of families and children; consequently, they provided family care for all three family types.

When the availability of specialties was compared with the specialties used for primary care, a fairly consistent pattern was found among the six sites. A significantly greater proportion of primary care was provided by generalists compared with their relative availability; general-

TABLE 3. SPECIALTIES OF PRIMARY CARE PHYSICIANS FOR ALL INDIVIDUALS (percentage)

Specialty of Primary Care Physician	Young Couples		Families with Children			Older Couples	
	Female Head (n=64)	Male Head (n=58)	Female Head (n=286)	Male Head (n=275)	Children (n=442)	Female Head (n=62)	Male Head (n=61)
Generalists	81.3	94.8	74.8	90.9	96.8	87.1	93.4
Family–general practice	57.8	72.4	57.3	68.7	42.8	62.9	72.1
Internal medicine	23.4	22.4	16.8	22.2	2.0	24.2	21.3
Pediatrics	0.0	0.0	0.7	0.7	52.0	0.0	0.0
Nongeneralists	18.8	5.2	25.2	9.1	3.2	12.9	6.6
Medical subspecialties	0.0	0.0	1.7	1.5	0.5	6.5	3.3
Obstetrics-gynecology	15.6	3.4	20.6	1.1	0.2	3.2	0.0
Surgery	3.1	1.7	1.7	4.0	1.8	3.2	3.3
Other specialties	0.0	0.0	1.0	2.5	0.7	0.0	0.0
Totals	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number undetermined*	5	12	24	28	35	6	7

** Number of physicians not specifying specialty preference, not listed in physician directories, or not individually identified (ie, listed as a group practice or clinic)*

ists provided 81.5% to 98.5% of the primary care, yet only 26.4% to 42.1% of the physicians in each site were generalists ($P<.001$). Family physicians and general practitioners, in particular, provided a significantly greater proportion of primary care in the six sites, 36.2% to 83.3%, compared with their relative availability, 4.4% to 30.0% ($P<.001$).

Further analysis of the data showed that the use of different specialists for primary and family care varied during the family life cycle. Older children made greater use of family physicians and general practitioners and less use of pediatricians than younger children. Fifty-two percent of children aged 6 years or older had a family physician for their primary care physician compared with 30.7% of children younger than 6 years of age ($\Delta\% = 21.3$, 95% CI = 12.3–30.3). Only 39.2% of children aged 6 years or older used a pediatrician compared with 68.8% for children younger than 6 years old ($\Delta\% = 29.6$, 95% CI = 20.7–38.5). Since almost no adult saw a pediatrician, the greater use of pediatricians by younger children resulted in those children being less likely to share either parent's primary care physician.

The use of specialists also varied for older women. Only 3.2% of women in older couples used an obstetrician-gynecologist for primary care in comparison with 19.7% of women in young couples and families with children ($\Delta\% = 16.5$, 95% CI = 10.4–22.5). Consequently, much of the increased family care among older couples was due to the female heads of families being able to share their spouses' primary care physician, and these physicians tended to be either a family physician–general practitioner or an internist. Conversely, the use of obstetrician-gynecologists by female heads of families became less a factor among families not receiving family care as the family matured. Among older couples not sharing physicians, only 13.3% of female heads of families used an obstetrician-gynecologist; 48.0% of younger couples and families with children not sharing physicians used an obstetrician-gynecologist ($\Delta\% = 34.7$, 95% CI = 14.9–54.5).

Among families with children, the age of the youngest child (younger than 6 years vs 6 years or older) was used as an indicator of family maturity. A trend approaching statistical significance was found wherein a greater percentage of mothers with younger children used an obstetrician-gynecologist compared with mothers with older children, 24.2% vs 16.0%, respectively ($\Delta\% = 8.2$, 95% CI = −1.0–17.4).

An interesting pattern of care was observed that suggests some families prefer using specialists rather than a family physician or general practitioner. For female heads of families using an obstetrician-gynecologist for primary care, 92.5% of their children were seen by pediatricians. In addition, for female heads of families using an internist, 76.7% of their children were seen by pediatricians. In contrast, if the female heads of families used a family physician or general practitioner, only 28.2% of their children were seen by pediatricians for primary care.

DISCUSSION

Within the specialty of family practice, the principle of providing care for intact family units has not been uniformly accepted, despite having the specialty's name and

identity linked to the family. Among training programs, varying emphasis is placed on teaching interventions that involve seeing multiple family members, such as family therapy.

The results of this study show that among a broadly representative sample of nuclear families, family physicians and general practitioners do provide care to intact families. Of the 447 families from this population-based sample, 147 (33.1%) were receiving primary care as an intact family unit from a single family physician or general practitioner (Table 2). Among all families receiving complete family care, family physicians and general practitioners were the predominant family care providers for those with and without children. Internists played an important role only for families without children. Although obstetrician-gynecologists and pediatricians were important providers of primary care, they provided almost no family care. If the important aspect of family care is providing care for more than one, but not necessarily all, family members, then pediatricians can be considered to have provided family care, since they often cared for more than one child in a family.

The degree to which various specialties provide family care reflects their role in providing primary care. Specialties that limit provision of primary care to patients of certain age and sex generally provide primary care only to those groups. Those limits in turn determine the extent to which those specialties can provide family care. The specialties of physicians providing primary care and consequently family care did not result from limited availability of other specialties.

The primary care role of the different specialties changes with the family life cycle. As similarly noted by Hickson and colleagues,[19] older children tended to use fewer pediatricians and more family physicians and general practitioners. In this study, women in more mature families were also found to be less likely to use obstetrician-gynecologists and more likely to use family physicians and general practitioners and internists for primary care. This pattern of use permitted more sharing of primary care physicians by other family members and thus increased family care among the more mature families.[9] Since this data from the Rand HIE study excluded individuals over 62 years of age, the specialty of physicians providing primary and family care during the latest stages of the family life cycle cannot be determined.

This study is limited in that it cannot discriminate between board-certified family physicians who were residency trained and those who were nonresidency trained; many board-certified physicians at the time of the study may not have been residency trained. Although differences in preference for board-certified family physicians and non-board-certified general practitioners for primary and family care were not observed, the effect of increasing numbers of residency-trained family physicians trained since these data were collected (1974 to 1982) cannot be predicted.

This study also cannot indicate why some families choose to use a single physician and others do not. Some patients do not have the expectation that their family will see a single physician but instead will see various specialists.[20] Even among families using a single family physician, one survey found almost one third had no special reasons for doing so. Only about 20% of the families did so with the expectation that they would receive better care.[21] Studies of how patients select their physician have often shown that issues of convenience and physician interpersonal skills are important determinants. The search for a physician is often limited; parents selecting physicians for their children used an average of only 1.2 sources of information to make their decision.[19] Since friends and other family members are the usual information sources,[19,21,22] intrafamily referrals may explain much of the increased family care in more mature families. Thus, families may not choose family care because of a conscious preference or a perception of better care but rather because one family member's experience with a physician makes it more convenient for other family members to use the same physician and less convenient for them to search for another physician.

For whatever motives, the results of this study indicate that many families prefer receiving care from a single physician. Measures of patient satisfaction, subscales of which include accessibility, convenience, provider availability, and continuity, have been shown to be inversely related to changes in physician and disenrollment from prepaid health plans.[23] Providers able to accommodate this preference for family care, such as family physicians, may eventually play a greater role in providing primary care. Particularly in prepaid health plans, where the patient's freedom to select a primary care physician is usually restricted, the role of the various specialties in the provision of family care could change to reflect these preferences.[24]

In summary, this study provides additional insight into defining and measuring primary and family care. Improvements in methodology have permitted a better appreciation for the role of various specialties, particularly family physicians, in providing these types of care. These results suggest that perhaps family practice should reconsider the role of the family. The expectations of many patients, family physicians, and family physicians in training is affirmed: family care can mean providing care for whole families. More important, from a health services perspective, the sharing of information across family members provides an untapped means to improve the delivery of health care through involvement of the family in areas such as medication and diet compliance and completion of health screening procedures.

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References

1. Campbell TL: Family's impact on health: A critical review. Fam Syst Med 1986; 4:135–200
2. Schor E, Starfield B, Stidley C, et al: Family health: Utilization and effect of family membership. Med Care 1987; 25:616–626
3. Newacheck PW, Halfor N: The association between mother's and children's use of health services. Med Care 1986; 24:30–38
4. Morisky DE, DeMuth NM, Field-Fass M, et al: Evaluation of family health education to build social support for long-term control of high blood pressure. Health Educ Q 1985; 12:35–50
5. Earp JL, Ory MG, Stogatz DS: The effects of family involvement and practitioner home visits on the control of hypertension. Am J Public Health 1982; 72:1146–1154
6. Bayard W, Allmond JR: Health care management of the family. In Hoekelman RA (ed): Primary Pediatric Care. St Louis, CV Mosby, 1987, pp 594–99
7. Fujikawa LS, Bass RA, Schneiderman LJ: Family care in a family practice group. J Fam Pract 1979; 8:1189–1194
8. McKenna MS, Wacken WEC: Do patients really want "family doctors"? N Engl J Med 1976; 295:279–280
9. Murata PJ, Kane RL: Do families get family care? JAMA 1987; 257:1912–1915
10. Wasson JH, Sauvigne AE, Mogielnicki RP, et al: Continuity of outpatient medical care in elderly men. JAMA 1984; 252:2413–2417
11. Newhouse JP, Manning WG, Morris CN, et al: Some interim results from a controlled trial of cost sharing in health insurance. Rand Publication No. R-2847-HHS. Santa Monica, Calif, Rand Corporation, 1982
12. Brook RH, Ware JE, Rogers WH, et al: Does free care improve adults' health? N Engl J Med 1983; 309:1426–1434
13. Morris CN: A finite selection model for experimental design of the health insurance study. J Econometrics 1978; 11:43–61
14. Spiegel JS, Rubenstein LV, Scott B, et al: Who is the primary care physician? N Engl J Med 1983; 308:1208–1212
15. American Medical Association, American Medical Directory. Chicago, American Medical Association, 1982
16. Marquis Who's Who, Inc, Directory of Medical Specialists. Chicago, Marquis Who's Who, 1985
17. American Osteopathic Association, Yearbook and Directory of Osteopathic Physicians. Chicago, American Osteopathic Association, 1983
18. American Psychological Association, American Psychological Association Directory. Washington, DC, American Psychological Association, 1981
19. Hickson GB, Stewart DW, Altemeier WA, et al: First step in obtaining child health care: Selecting a physician. Pediatrics 1988;81:333–338
20. Hyatt JD: Perceptions of the family physician by patients and family physicians. J Fam Pract 1980; 10:295–300
21. Bartholomew L, Schneiderman LJ: Attitudes of patients toward family care in a family practice group. J Fam Pract 1982; 15:477–481
22. Wolinsky FD, Steiber SR: Salient issues in choosing a new doctor. Soc Sci Med 1982; 16:759–767
23. Marquis MS, Davies AR, Ware JE Jr: Patient satisfaction and change in medical care provider: A longitudinal study. Med Care 1983; 21:821–829
24. Steinwach DM, Weiner JP, Shapiro S, et al: A comparison of the requirements for primary care physicians to HMOs with projections made by the GMENAC. N Engl J Med 1986; 314:217–222