RESEARCH

Closed and restricted practices

Recent family medicine graduates place limits on services

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ABSTRACT

OBJECTIVE To determine the proportion of recently certificated Ontario family physicians who have closed their practices to new patients or restricted their services.

DESIGN Cross-sectional survey mailed between September 1993 and January 1994.

SETTING Ontario family practices.

PARTICIPANTS All family medicine residency-trained certificants of the College of Family Physicians of Canada from 1989 to 1991 currently practising in Ontario. Response rate was 70% (395 of 564 eligible physicians). Otherwise eligible physicians practising as locums, emergency room physicians, or military physicians were excluded.

MAIN OUTCOME MEASURES Self-report of practices being closed to new patients and of various restrictions placed on practices.

RESULTS Nearly one third of respondents had closed their practices to new patients. Although the decision to close a practice correlated with length of time in practice, physicians in metropolitan Toronto were significantly less likely to report closed practices than physicians practising in other regions of Ontario. Restrictions reported related to patients and problems, geographic area, and type of setting(s) serviced. About 45% of respondents did not provide one or more of a defined set of five services.

CONCLUSIONS Results of this study suggest that family physicians restrict their practices in various ways within the first 5 years after certification.

RÉSUMÉ

OBJECTIF Déterminer la proportion de médecins de famille ontariens récemment certifiés qui n'acceptent plus de nouveaux patients ou qui ont limité leurs services.

CONCEPTION Sondage postal transversal effectué entre septembre 1993 et janvier 1994.

CONTEXTE Pratiques familiales de l'Ontario.

PARTICIPANTS Tous les médecins de famille diplômés des programmes de résidence et certifiés du Collège des médecins de famille du Canada entre 1989 et 1991 et qui exercent présentement en Ontario. Le taux de réponses fut de 70 % (395 des 564 médecins admissibles). Ont été exclus de l'étude les médecins qui agissaient comme médecins dépanneurs, urgentologues ou qui exerçaient dans les forces militaires.

PRINCIPALES MESURES DES RÉSULTATS Signalement des pratiques qui n'acceptent plus de nouveaux patients et qui imposent diverses restrictions.

RÉSULTATS Près du tiers des répondants n'acceptaient plus de nouveaux patients. Malgré la corrélation entre la décision de fermer la pratique et la durée de l'installation en pratique, les médecins de la région métropolitaine de Toronto étaient significativement moins susceptibles de rapporter ne plus accepter de nouveaux patients comparativement aux médecins exerçant dans les autres régions de l'Ontario. Quant aux limitations des services, elles étaient fonction des patients et des problèmes, de la zone géographique et du type de contexte desservi. Environ 45 % des répondants ne dispensaient pas au moins un de la série des cinq services mentionnés.

CONCLUSIONS Les résultats de cette étude indiquent que les médecins de famille limitent leur pratique de différentes façons au cours des cinq années qui suivent la certification.

This article has been peer reviewed.
Can Fam Physician 1997;43:1541-1547.

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Physician resource supply planners require information not only about numbers of physicians, their fields of medicine, location, and hours of practice, but also about the limits they impose on their practices. Patients are likely to have difficulty obtaining services if physicians close their practices to new patients or otherwise restrict their services even when it appears that the number of physicians available should be able to meet the population's needs.

Little empirical information exists about how many physicians limit their practices and the types of limits they impose. The Canadian Medical Association's 1982 physician resource survey[1] asked physicians who indicated that "general" or "family" best described their practices to indicate whether anesthesia, surgery (operating room), or occupational or industrial medicine were included in their practices and how many hours they spent in these areas. They were also asked whether they did deliveries (56.5% said yes) and how many deliveries they did each year.

In this paper, we examine the extent to which Ontario physicians certificated in family medicine between 1989 and 1991 have closed or restricted their practices, the types of restrictions they have set, and some correlates of having closed or restricted practices.

METHOD

The analyses we report were part of a larger survey undertaken in fall 1993 of all family medicine residency graduates who practised in Ontario and were certificated in family medicine between 1989 and 1991. Self-administered questionnaires were mailed to 564 eligible physicians. Most of the questions had appeared on other surveys.[1-4] Follow-up procedures included a thank-you reminder card and up to two additional mailings of questionnaires.

As part of the survey, physicians were asked whether they were currently practising medicine and their current practice type. Information from survey responses was used to select physicians who were not doing locums or working as emergency room or military physicians, situations in which physicians have no discretion about closing or restricting their practices.

We examined data on physicians who reported their practices closed to new patients or having some kind of restrictions. Responses to an open-ended question on types of restrictions were subjected to content analysis and categorized. Categorization of responses by two researchers produced excellent agreement. We examined, using bivariable and multivariable statistics, the extent to which length of time in current practice; sex of physician; hours per week spent in professional activity, excluding on-call time; practice location (urban or rural); region of practice (represented by Ontario's five postal codes); and practice type (solo or group) were associated with the decision to close practices or restrict services. χ^2 tests were used to test bivariable associations of categorical data, parametric statistics (t tests, analysis of variance) to examine continuous data, and logistic regression to examine multivariable correlates of closed practices. All analyses were done using SPSS PC+. Because data were subjected to multiple challenges, differences of $P \geq .01$ were considered significant and differences where P is less than .05 and greater than .01 were considered interesting.

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RESULTS

Response rate was 70% (n = 395) by the February 1, 1994, cutoff date for the study.

Sample

Slightly more than half (53.4%) the respondents were women (also true of the entire sample), and 80.4% had chosen group practice (**Table 1**). Physicians had been in their current practices, on average, just over 2 years (range 1 to 62 months). On average, women reported spending 40 hours per week on professional activities, 8.5 hours less per week than the time reported by men, a significant difference at $t=6.22$, $P<.001$. Women physicians were also more likely to practise in groups (84.9%) than men (75.3%) ($\chi^2=4.64$, $P=.031$). Most physicians practised in urban areas of southern Ontario.

Closed practices

Nearly one third of physicians indicated they had closed their practices. When examined bivariately, sex of physician, practice type, rural location, and hours per week spent on professional activities were not significantly associated with having closed

practices. Physicians living in metropolitan Toronto, however, were significantly less likely (16.4%) to report closed practices than physicians in other regions of Ontario (range 30.4% to 45.7%, $\chi^2 = 13.87$, $P = .008$). Both men and women physicians with closed practices had been in their current practices significantly longer than those whose practices were open to new patients ($F = 10.5$; $df = 1,269$, $P = .001$). Women, however, reported being in their current practices for less time than men ($F = 5.39$; $df = 1,269$; $P = .021$).

Logistic regression (not shown) indicated that the likelihood of having a closed practice increases significantly (odds ratio [OR] = 1.03; $P = .002$) as the number of months in current practice increases. Physicians in metropolitan Toronto were significantly less likely (OR = 0.28, $P = .006$) to have closed practices than physicians in other regions. Also, women physicians and physicians who practised longer hours per week were somewhat more likely ($P < .05$) to have closed practices.

Restriction of services

Respondents were asked which of a list of services they provided. **Table 2** shows the proportion of male and female physicians who indicated they do *not* provide five services considered by the College of Family Physicians of Canada (CFPC) as core services.[5] Although no overall difference in the proportions restricting the five services was associated with sex of physician, women (19.2%) were more likely than men (10.0%) to exclude office-based minor surgery, while men (27.3%) were more likely than women (18.0%) to exclude maternity care (shared antenatal care, complete antenatal care, or intrapartum care), with differences considered interesting. Overall, 45.3% of physicians indicated they did not provide one or more of the five services. Most physicians who did not provide the services chose not to provide one (24.2%) or two (15.8%) of them. Only six physicians (four men, two women; 1.9% of the group) said they provided none of the five services.

Table 1A. Characteristics of closed and open practices (n = 308)

CHARACTERISTIC	N (%)	REPORTED PRACTICE CLOSED N (%)	REPORTED PRACTICE OPEN N (%)
Sex of physician			
Male	150 (46.6)	41 (29.1)	100 (70.9)
Female	172 (53.4)	61 (36.5)	106 (63.5)
Type of practice			
Solo	63 (19.6)	26 (41.9)	36 (58.1)
Group	259 (80.4)	76 (30.9)	170 (69.1)
Location			
Rural	43 (13.4)	11 (28.2)	28 (71.8)
Urban	279 (86.6)	91 (33.8)	178 (66.2)
Region (postal code)			
East (K)	73 (22.7)	21 (30.4)	48 (69.6)
Metropolitan Toronto (M)	69 (21.4)	11 (16.4)	56 (83.6)
Central west (L)	89 (27.6)	34 (39.5)	52 (60.5)
Southwest (N)	49 (15.2)	21 (45.7)	25 (54.3)
North (P)	42 (13.0)	15 (37.5)	25 (62.5)

Table 1B. Time spent in closed and open practices

TIME SPENT	ALL PRACTICES	REPORTED CLOSED PRACTICES	REPORTED OPEN PRACTICES
Mean no. of hrs/wk in professional activities (SD)			
Men	48.5 (11.3)	51.9 (10.5)	47.8 (11.2)
Women	40.0 (12.4)	41.5 (14.0)	39.9 (11.1)
Mean no. of months in current practice (SD)			
Men	27.7 (14.4)	32.9 (15.6)	26.4 (13.4)
Women	25.1 (13.2)	28.0 (12.0)	23.4 (13.4)

Table 2. Types of restrictions by sex of physician

RESTRICTION	MALE PHYSICIANS (N = 150) N (%)	FEMALE PHYSICIANS (N = 172) N (%)	TOTAL (N = 322) N (%)	χ^2	P
No minor surgery in office	15 (10.0)	33 (19.2)	48 (14.9)	5.33	.02
No antenatal or intrapartum care	41 (27.3)	31 (18.0)	72 (22.4)	4.00	.05
No newborn care	9 (6.0)	21 (12.2)	30 (9.3)	2.96	NS
No counseling or psychotherapy	15 (10.0)	20 (11.6)	35 (10.9)	0.22	NS
No hospital services	28 (18.7)	34 (19.8)	62 (19.3)	0.06	NS
At least one restriction	62 (41.3)	84 (48.8)	146 (45.3)	1.82	NS

NS – *not significant.*

Although previous studies have examined only whether family physicians do deliveries, the CFPC acknowledges that some faculty in residency programs do not do obstetrics.[5] Thus, we did not consider practices offering only shared care as restricted. In our sample, only 126 physicians (39.1%) provided intrapartum obstetric care.

The questionnaire included the global question, "Have you restricted your practice in any way (eg, by excluding certain problems, procedures, or age groups)?" A description of restrictions was requested for affirmative replies. Interestingly, in this question, which preceded the question about services included in practices, only 22 respondents (14 men, 8 women) mentioned they do no obstetrics. All 22 later indicated they do no deliveries. The pattern of responses by sex was similar to later responses to the question about restrictions, but fewer respondents reported restrictions.

Correlates of service restriction

Some bivariable relationships between physician descriptor variables and restriction of one or more services were seen (**Table 3**). Both sex (F = 35.34, df = 1,297, $P < .001$) and whether a physician restricted services (F = 5.90, df = 1,297, P = .016) were significantly related to hours worked professionally per week, but they did not interact. More physicians with open practices restricted one or more of the services in their practices (48.5%) than physicians with closed practices (36.3%; $\chi^2 = 4.16$, $P = .04$). Men physicians in urban (39.7%) and rural areas (33.3%) were equally likely to restrict routine services.

In urban areas, 51.6% of women physicians had restrictions on the routine services, but only 26.3% of women in rural areas placed such restrictions ($\chi^2 = 4.33$, $P = .037$). Women in metropolitan Toronto were most likely to restrict services (71.1%), followed by women in eastern Ontario (58.5%), central west Ontario (46.0%), northern Ontario (23.8%), and southwestern Ontario (18.2%).

Other types of restrictions

Table 4 shows types of restrictions (developed from physicians' responses to the open-ended question) other than the specific services studied. Some physicians took patients with only certain kinds of problems or attempted to avoid certain types of patients (usually patients with complex problems whose care required considerable coordination and interaction with community agencies or who were seen as difficult to treat). Other restrictions were geographic or related to the nonmedical characteristics of patients or the places where services were provided. The number of physicians reporting any given type of restriction was small. When all restrictions were considered together, 59.0% of physicians had in some way restricted their practices.

DISCUSSION

The CFPC specifies that residency training should include following at least six pregnant patients to term and managing them through labour and delivery and the opportunity to learn surgical and procedural skills that can be practised appropriately in the office.[5] Training in neonatal care and counseling

and psychotherapy and exposure to a range of age groups also are required during residency. Our survey suggests, however, that only slightly more than 50% of family physicians are using the skills acquired during residency in these areas 3 to 5 years after certification.

This study suggests that primary care physicians limit their practices in a variety of ways that lessen the availability of a full range of primary care services to the population. The number of restrictions reported by this cohort relatively early in their careers indicates that greater attention needs to be paid to such restrictions when planning for population health care needs. Only 34% of these family physicians had not closed their practices or restricted the types of services they provided. The physicians with closed practices, however, offered a fuller range of services than physicians who simply restricted services but otherwise were open to new patients. It could be argued that closing a practice is necessary at times to provide continuity of high-quality care to the practice population.

Differences noted in the proportion of physicians who closed their practices or restricted services might be affected also by known differences in physician-to-population ratios in regions of Ontario. In metropolitan Toronto, where the ratio is highest, fewer practices were closed and more practices (especially women's) were restricted. Having a closed practice is related to length of time in practice, but female physicians' practices are likely to close more quickly than men's, suggesting that they are in greater demand. Rural practices are somewhat less likely to be closed than urban practices, possibly because fewer alterna-

Table 3A. Characteristics of restricted and full-service practices

CHARACTERISTIC	REPORTED RESTRICTED PRACTICE N (%)	REPORTED FULL-SERVICE PRACTICE N(%)
Sex of physician		
Male	62 (41.3)	88 (58.7)
Female	84 (48.8)	88 (51.2)
Type of practice		
Solo	24 (38.1)	39 (61.9)
Group	122 (47.1)	137 (52.9)
Location		
Rural	13 (30.2)	30 (69.8)
Urban	133 (47.7)	146 (52.3)
Region (postal code)		
East (K)	40 (54.8)	33 (45.2)
Metropolitan Toronto (M)	41 (59.4)	28 (40.6)
Central west (L)	38 (42.7)	51 (57.3)
Southwest (N)	12 (24.5)	37 (75.5)
North (P)	15 (35.7)	27 (64.3)
Practice closed		
Yes	37 (36.3)	65 (63.7)
No	100 (48.5)	106 (51.5)

Table 3B. Time spent in restricted and full-service practices

TIME SPENT	REPORTED RESTRICTED PRACTICE	REPORTED FULL-SERVICE PRACTICE
Mean no. of hrs/wk in professional activities (SD)		
Men	46.5 (SD 10.5)	49.9 (SD 10.5)
Women	38.7 (SD 11.6)	41.4 (SD 13.2)
Mean no. of mo in current practice (SD)		
Men	26.2 (SD 14.4)	28.8 (SD 14.5)
Women	25.4 (SD 13.9)	24.8 (SD 12.5)

Table 4. Other types of practice restrictions

RESTRICTIONS	MALE PHYSICIANS	FEMALE PHYSICIANS
Limited to		
• cancer patients	1	0
• sports medicine	0	4
• emergency cases	2	0
• new prenatal cases	1	3
• geriatric cases	0	2
Restricted to avoid		
• workmen's compensation and disability cases	10	6
• complicated chronic disease	8	4
• cases involving coordination	0	1
• noncompliant patients	0	1
Geographic boundaries within local calling area or a set distance from practice	3	3
Other related nonmedical patient characteristics		
• not if a male doctor will do	0	1
• only if referred by doctor or family or friend of patient	2	7
• no transfers; new to town only	5	3
• only over age 40	1	0
No house calls	0	3

tives are available to patients in rural areas. In some cases, patient density in rural areas is lower, so the practice is never "full" enough to warrant closure.

Types of restrictions

This analysis provides a framework for thinking about the types of restrictions that primary care physicians place on their practices. Having a closed practice (accepting *no* new patients) could be seen as the most severe restriction from a medical resource supply point of view, and depends, at least in part, on how long a physician has been practising. It was somewhat surprising to find that nearly a third of Ontario family physicians who entered practice within the last 5 years had closed practices. Yet, even closed practices sometimes accept physician-initiated referrals, thus blurring the distinction between closed and restricted practices.

Also, our experience in other research indicates that practices can close for a time and then reopen until patient rosters are replenished. Thus, more information could be gleaned for human resource planning purposes by determining how many months during the past year a practice was closed to all new patients; accepted patients only on physician referral; accepted patients on referral from physicians, patients, or former patients; or accepted new patients.

Although few primary care physicians spontaneously mentioned placing geographic restrictions on their practices, most physicians set boundaries on the area from which their patients are drawn. Physicians could be asked whether they accept patients who live outside the local telephone calling area and, if so, how they define the area from which their patients are drawn. We noted that some physicians restrict where they offer services (which can also affect the types of services provided). Whether physicians see patients outside the office, make housecalls, or see patients in hospitals or chronic care facilities or nursing homes should be asked. Only women physicians specifically mentioned that they do not make housecalls. Focus groups with physicians 5 to 9 years into practice suggest that some women choose not to make housecalls because of safety concerns.[6] For similar reasons, they meet patients who call them after hours in the emergency room rather than in their offices.

Our data suggest that some physicians narrow the mix of services they provide by limiting practice to certain types of patients or problems and related services. Such decisions might flow from physicians'

special interests (eg, antenatal care, counseling and psychotherapy, sports medicine) or might depend on other factors, such as a physician's comfort level in performing the service, available backup, a physician's assessment of whether time spent providing these services is remunerated adequately, and safety concerns. Whether a physician's practice is limited, what area(s) of medicine a physician practises, and the proportion of total professional time devoted to special interests need further study. Even in our fairly new-to-practice cohort, 11 physicians spontaneously mentioned limiting themselves to narrowly defined areas. Another eight, excluded from this study because they practised solely in emergency rooms, also could be seen as having limited their practices.

Some physicians try to screen potential new patients to avoid those with complex problems. Others cannot tolerate patients with complex problems for long, causing them to "fire" such patients, especially those perceived as noncompliant. Nearly 10% of physicians studied indicated that they tried to avoid patients whose management they found difficult. Spontaneous mention of avoiding such patients probably underreports the frequency with which such patients encounter difficulty finding (and retaining) family physicians. Some physicians said they accepted no transfers from other local physicians, restricting their practice intake to patients new to town. This could be to avoid "problem" patients refused services by other local physicians or it could be to maintain the good will of other primary care physicians in the community, who might be concerned if their patients move to the practice of a newly arrived physician.

Limitations

We studied only residency-trained family physicians certificated between 1989 and 1991 and only those practising in Ontario. These factors might limit the generalizability of this study. As well, our data suggest that physicians were less likely to report practice restrictions in an open-ended response format. If we had relied on the open-ended responses only to detect restriction of the five basic services, restrictions would have been considerably underreported. We cannot tell how much other types of restrictions are underreported.

Conclusion

Many family physicians close or otherwise restrict their practices within the first 5 years after certification. For human resource supply planning purposes, better information is needed about how many primary care practices are closed or restricted in various ways. ♣

Acknowledgment

This research was funded by the Social Sciences and Humanities Research Council of Canada, grant no. 882-92-0044. We thank the physicians who participated in the survey.

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