Caractéristiques et pratiques médicales des diplômés en médecine de l'étranger

Diffèrent-elles de celles des médecins formés au Canada?

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RÉSUMÉ

OBJECTIF Examiner les caractéristiques personnelles et les pratiques médicales des diplômés en médecine de l'étranger (DME) qui exercent dans le Sud-Ouest ontarien et les comparer avec les habitudes de pratique des médecins de famille formés au Canada qui exercent dans la même région.

CONCEPTION Une analyse transversale des données tirées d'un recensement des médecins de famille.

CONTEXTE Le Sud-Ouest de l'Ontario.

PARTICIPANTS Un total de 685 médecins de famille.

PRINCIPALES MESURES DES RÉSULTATS Caractéristiques et pratiques médicales des médecins DME et des médecins formés au Canada.

RÉSULTATS Parmi les médecins de famille exerçant dans le Sud-Ouest ontarien, 15,3% étaient des DME. On a constaté que les DME étaient habituellement plus âgés et en pratique depuis plus longtemps, qu'ils avaient moins souvent fait une résidence en médecine familiale, ou enseigné au niveau prédoctoral ou postdoctoral, en comparaison des médecins formés au Canada. Les DME exerçaient depuis plus longtemps dans leur lieu de pratique actuel, plus souvent en solo et acceptaient de nouveaux patients. Ils étaient cependant moins enclins à offrir des soins maternels et néonatals. Il arrivait plus souvent qu'ils exercent dans de petites villes et des collectivités rurales et éloignées que les diplômés en médecine du Canada.

CONCLUSION Les caractéristiques sur les plans personnel et médical des médecins DME sont quelque peu différentes de celles de leurs collègues formés au Canada. Les politiques élaborées pour accroître le nombre de médecins DME et les intégrer à l'effectif médical doivent tenir compte de ces différences. D'autres recherches s'imposent avant de pouvoir généraliser nos résultats et les appliquer aux médecins qui exercent à l'extérieur du Sud-Ouest de l'Ontario.

POINTS DE REPÈRE DU RÉDACTEUR

- Même si 23% des médecins qui exercent au Canada sont des diplômés en médecine de l'étranger (DME), de nombreux DME qui vivent au Canada ne peuvent pas pratiquer la médecine.
- Compte tenu de l'actuelle pénurie de médecins de première ligne, l'une des politiques présentement à l'étude par les gouvernements fédéral et provinciaux envisage l'augmentation du nombre de postes de formation à l'intention des DME.
- Cette étude a examiné les habitudes de pratique des DME et les a comparées à celles des médecins formés au Canada. Elle fait valoir que les DME offrent un précieux service en acceptant de nouveaux patients et en dispensant des soins médicaux dans les collectivités rurales, petites et isolées dans le Sud-Ouest ontarien.

Cet article a fait l'objet d'une révision par des pairs.
Le texte intégral est accessible en anglais à **www.cfpc.ca/cfp.**
Can Fam Physician 2007;53:1330-1331

Characteristics and practice patterns of international medical graduates

How different are they from those of Canadian-trained physicians?

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ABSTRACT

OBJECTIVE To investigate the personal characteristics and practice patterns of international medical graduates (IMGs) practising in southwestern Ontario and to compare them with the personal characteristics and practice patterns of Canadian-trained family physicians practising in the same region.

DESIGN Cross-sectional analysis of data gathered from a census of family physicians.

SETTING Southwestern Ontario.

PARTICIPANTS A total of 685 family physicians.

MAIN OUTCOME MEASURES Characteristics and practice patterns of IMG physicians and Canadian-trained physicians.

RESULTS Among all family physicians practising in southwestern Ontario, 15.3% were IMGs. The IMGs were more likely than Canadian-trained medical graduates to be older and to have been in practice longer, and less likely to have completed a family medicine residency or to have been involved in undergraduate or postgraduate teaching. The IMGs were more likely to have practised longer in their current locations and to be in solo practice and accepting new patients, but were less likely to be providing maternity and newborn care. They were also more likely than Canadian-trained medical graduates were to be serving in small towns and rural and isolated communities.

CONCLUSION The personal and practice characteristics of IMG physicians vary somewhat from those of their Canadian-trained colleagues. Policy efforts aimed at increasing and integrating IMG family physicians into the work force need to recognize these differences. Further research is needed before our results can be generalized to physicians practising beyond southwestern Ontario.

EDITOR'S KEY POINTS

- Even though 23% of all practising physicians in Canada are international medical graduates (IMGs), many IMGs living in Canada are not able to practise medicine.
- With the current shortage of primary care physicians, a policy option being addressed at federal and provincial levels is to increase training positions for IMGs.
- This study looked at the practice patterns of IMGs and compared them with those of physicians trained in Canada and found that IMGs offer a valuable service in accepting new patients and providing medical care in rural, small, and isolated communities in southwestern Ontario.

This article has been peer reviewed.
Full text is available in English at **www.cfpc.ca/cfp.**
Can Fam Physician 2007;53:1330-1331

One of the main problems facing the Canadian health care system today is that patients have difficulty accessing primary care.[1] This is in part due to a shortage of primary care physicians.[2,3] A recently released report from the Organisation for Economic Co-operation and Development (OECD) indicated that Canada had fewer practising physicians per capita than most OECD countries (2.1 physicians per 1000 population compared with an OECD average of 3 per 1000).[4]

Canada's generous immigration policy has opened the way for a large number of foreign-trained physicians to enter the country as immigrants. One policy option being pursued at federal and provincial levels is to increase postgraduate training opportunities for these physicians to facilitate their entry into Canada's physician work force. We could find no Canadian literature comparing the practice patterns of international medical graduates (IMGs) with those of Canadian-trained medical graduates (CMGs), so we analyzed the results of a census of family physicians in southwestern Ontario to compare the individual and practice characteristics of IMGs and CMGs in the region.

An analysis by the Canadian Institute for Health Information ascribed the shortage of family physicians in Canada to many factors, among them the 10% reduction in medical school enrolments enforced in 1993, the requirement for an additional year of training enacted the same year, limits on the number of foreign-trained physicians allowed to practise in Canada, and the retirement of many practising physicians.[3] This analysis indicated that, although general practitioners now constitute 51% of all physicians, the shortage will become worse in the future due to 2 key demographic shifts: increasing retirements among "baby boomer" physicians and their replacement by an increasing number of female family physicians who are less likely to work full-time, as they have to balance work and family commitments.[3,5-7]

Data from the Canadian Medical Association's 2004 Masterfile indicate that 23% of all practising physicians in Canada are IMGs.[2] Saskatchewan and Newfoundland have a higher proportion of IMG physicians (55% and 44%, respectively) than other provinces, such as Quebec (12%), have.[2] The data suggest that IMGs tend to be older on average than CMGs and that there is a lower proportion of female physicians among IMGs.[8] Data from the second iteration of the Canadian Resident Matching Service (CaRMS) 2002 match indicate that 72% of IMGs received their degrees from medical schools in Asia, the Middle East, or Eastern Europe, and nearly one-third had graduated since 1994.[9] More than half had completed their training in English, and 42% had practised medicine for 1 to 5 years before coming to Canada.[9]

The top 5 residency choices reported by IMGs in the 2002 CaRMS match were family medicine and general practice (45%), internal medicine (15%), surgery (7%), obstetrics and gynecology (7%), and pediatrics (5%).[9] Nearly half said that their preferred practice location would be in a community of fewer than 100 000 people.[9]

Few data on actual practice patterns of IMGs, however, are available compared with the data on practice patterns of CMGs. An analysis of 127 275 patients with acute myocardial infarction admitted to hospitals in Ontario between 1992 and 2000 showed that the 30-day and 1-year risk-adjusted mortality rates of IMG- and CMG-treated patients were not statistically different; both groups of physicians also had similar rates of prescribing secondary prevention medications at 90 days and of performing cardiac invasive procedures at 1 year.[10] To better understand the practice patterns of IMGs and CMGs, we analyzed data from a decennial census of family physicians in southwestern Ontario. This article reports our findings on the individual and practice characteristics of IMGs and CMGs in this region.

METHODS

Study design and data sources

We did a cross-sectional analysis of data gathered on family physicians in southwestern Ontario. The data, collected as part of a census of all family physicians in the 10 counties surrounding and including London, Ont, provided information on a range of physician, practice, and system characteristics. A mailing list of all physicians in southwestern Ontario was purchased from *Scott's Directory* and was verified and updated using the family physician mailing list of the Thames Valley Family Practice Research Unit. This is the fourth decade in which information has been collected by investigators at the Centre for Studies in Family Medicine regarding the activities of family physicians.[11] For comparison purposes, identical questions to those used in earlier surveys were included in the 2004 survey whenever possible. Some questions had to be altered to reflect changes in clinical practice and organization. The entire questionnaire was pilot-tested by members of our liaison committee (composed of community family physicians

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and academic researchers) for relevance, clarity, and ease of completion. The study was approved by the University of Western Ontario's Research Ethics Board for the Review of Health Sciences Research Involving Human Subjects.

In fall 2004, the survey was mailed to 1044 family physicians in southwestern Ontario using a modified Dillman method.[12] The initial package sent by registered mail included the survey, an information letter, a $25 gift certificate, and a self-addressed stamped envelope. Reminder postcards were sent to all physicians 2 weeks later. Two additional packages were mailed to nonrespondents, the first about 4 weeks after the initial mailing and the last about 4 weeks after that. The response rate was 70% (731/1044).

Variables

Physicians were classified as IMGs based on their response to a question that asked whether they had graduated from an international medical school (ie, a medical school outside Canada). Independent variables were grouped into 2 levels: individual-level variables and practice-level variables.

Individual-level variables included age, sex, completion of a family medicine residency, involvement in undergraduate or postgraduate teaching, and years in practice. Practice-level variables included number of years in practice at current location and type of practice: solo or group, family health team, family health network, family health group, community health centre, or health services organization, as well as usual number of patients seen per week (≤100, 101 to 150, >150); whether the practice delivered babies, provided prenatal care, or provided maternity and newborn care; whether the practice was accepting new patients; average waiting time for a routine appointment (< 5 days, ≥5 days); and type of population served (urban, suburban or inner city, small town or rural, or isolated community).

Data analysis

Data analysis was carried out using Stata/SE.[13] The unit of analysis was the individual physician. Cross-tabulations with χ^2 tests and student's t test were used to examine categorical data and continuous data, respectively.

RESULTS

In our sample, 67% of the IMGs had received their undergraduate medical degrees from Ireland, the United Kingdom, Northern Ireland, Greece, or South Africa; 16% from developing countries (India, Iraq, China, Pakistan, the Philippines, or Egypt); 5% from eastern Europe (Poland, Bulgaria, or Romania); and the rest from the United States or Taiwan. While year of graduation ranged from 1955 to 2001, nearly 75% had graduated before 1983, and 95% had graduated before 1993.

Table 1 shows the individual and practice characteristics of the 105 IMGs and 580 CMGs for whom we had complete data on all variables. In the individual physician characteristics, statistically significant differences were noted in age, years in practice, involvement in teaching, and completion of a family medicine residency. The IMGs were older, had been in practice longer, and were less likely to have completed a family medicine residency or to be involved in undergraduate or postgraduate teaching than the CMGs were.

In the practice characteristics, statistically significant differences were noted in years practising at current location, type of practice (solo or group), provision of maternity and newborn care, acceptance of new patients, and type of population served. Compared with CMGs, IMGs had been in practice longer at their current locations and were more likely to be in solo practice and accepting new patients, but were less likely to be providing maternity and newborn care. They were also more likely to be serving small towns and rural and isolated communities.

DISCUSSION

Our results indicated that the proportion of IMG physicians in southwestern Ontario (15.3%) was lower than the proportion of IMG physicians among all physicians in Canada (23%) or in Ontario (25%).[2] This could be because IMG family physicians in Ontario are less likely to practise in southwestern Ontario (eg, they might choose to practise in the greater Toronto area with its higher population of immigrants) or because a greater proportion of IMGs are specialists.

Individual characteristics

In southwestern Ontario, IMG physicians were older than CMG physicians, and a similar age gap was reflected in years in practice. This could be due to IMGs' being older when they immigrated to Canada, the added time spent in completing certification requirements before they were licensed to practise, and the fact that licensure was difficult to obtain before 1993. Given that the number of retirements among physicians will increase in the coming years, it is in our interest to speed up the certification and licensing of IMGs so that there is minimal delay in their entering practice. In 2004, the Ontario government allocated $26 million to double the number of IMG training positions to 200 in the province.[14] The IMG physicians in southwestern Ontario were less likely than the CMG physicians to have completed a family medicine residency. This requirement was implemented in 1993, and

Table 1. Characteristics of Canadian medical graduates (CMGs) and international medical graduates (IMGs): *Mean age of CMGs was 48 years (range 29-77) and of IMGs was 56 years (range 32-77) (P < .000); mean number of years in practice for CMGs was 20.5 (range 2-48) and for IMGs was 29.3 (range 3-49) (P < .000); mean number of years practising at current location for CMGs was 11.6 (range 1-45) and for IMGs was 14.9 (range 1-41) (P = .003).*

CHARACTERISTICS	CANADIAN GRADUATES (N = 580) %	INTERNATIONAL GRADUATES (N = 105) %	*P* VALUE
INDIVIDUAL CHARACTERISTICS			
Sex			.062
• Male	68.8	77.9	
• Female	31.2	22.1	
Completed family medicine residency			.000
• No	42.3	67.3	
• Yes	57.7	32.7	
Involved in teaching			.000
• No	63.5	78.9	
• Yes	36.5	21.1	
PRACTICE CHARACTERISTICS			
Solo or group practice			.000
• Solo	42.1	62.5	
• Group	57.9	37.5	
Practice organized as FHT, FHN, FHG, CHC, or HSO*			.117
• No	64.5	72.4	
• Yes	35.5	27.6	
Usual no. of patients seen weekly			.344
• ≤100	37.0	29.4	
• 101-150	29.4	33.3	
• >150	33.6	37.3	
Deliver babies			.116
• No	88.1	93.3	
• Yes	11.9	6.7	
Provide prenatal care			.152
• No	31.9	39.1	
• Yes	68.1	60.9	
Provide maternity and newborn care			.032
• No	21.3	31.0	
• Yes	78.7	69.0	
Accepting new patients			.000
• No	70.3	51.4	
• Yes	29.7	48.6	
Average waiting time for appointment			.11
• <5 d	54.6	63.5	
• ≥5 d	45.4	36.5	
Population served			.048
• Urban, suburban, or inner city	54.1	47.1	
• Small town	28.3	32.9	
• Rural and isolated communities	17.6	20.0	

*Family health team, family health network, family health group, community health centre, or health service organization.

it is possible that many IMG physicians in southwestern Ontario began to practise in Canada before that.

Practice characteristics

The IMG physicians had more years practising in their current locations than CMGs did and were more likely to be practising solo and not to be involved in undergraduate or postgraduate teaching. As the Ontario Ministry of Health attempts to recast delivery of primary care in the province with a team approach, perhaps it should pay special attention to accommodating IMGs who are more likely to practise solo. As immigration continues to change the cultural mix of Canada, it is imperative that more IMGs be brought in to teach our medical students and residents, if only to sensitize them to cultural issues they will doubtless face in their future practices.

While IMGs and CMGs do similar numbers of deliveries and provide similar amounts of prenatal care, IMGs are less likely to provide maternity and newborn care in their practices. More research is needed to confirm this finding and to ascertain its cause. It could be because of their patient populations or it might be a reflection of their training or self-perceived competence or lack of competence.

The IMG family physicians were more likely to be accepting new patients in their practices and were more likely to be practising in small towns or rural and isolated communities. This is an important positive contribution made by IMG physicians in providing access to primary care, especially for rural and isolated communities in the province.

Limitations

A limitation of our analysis is that we relied entirely on self-reported data. Such data might be subject to recall and reporting bias, and we have no way of estimating or correcting for this. In addition, we did not have detailed sociodemographic information about the IMGs (whether they were Canadians who studied abroad

or immigrants, their first language, how many years they had practised in Canada, and so on). Further research is needed to corroborate our findings.

Conclusion

Our research indicates that the individual and practice characteristics of IMG family physicians in southwestern Ontario vary somewhat from those of CMG family physicans. Policy efforts aimed at increasing numbers of IMG family physicians and integrating them into the work force need to take these differences into account. Further research is needed before our results can be generalized beyond southwestern Ontario.

Acknowledgment

Dr Stewart *acknowledges funding through the Dr Brian W. Gilbert Canada Research Chair in Primary Health Care. The study was funded by a grant awarded by the Ontario Ministry of Health and Long-Term Care to the Thames Valley Family Practice Research Unit located in the Department of Family Medicine, Schulich School of Medicine & Dentistry, at the University of Western Ontario in London. The views expressed in this paper are the authors' and do not necessarily reflect the views of the Ontario Ministry of Health and Long-Term Care.*

Contributors

Dr Thind, Dr Freeman, Dr Cohen, *and* **Dr Stewart** *contributed to concept and design of the study; data gathering, analysis, and interpretation; and preparing the article for submission.* **Ms Thorpe** *and* **Ms Burt** *contributed to data gathering and analysis.*

Competing interests

None declared

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