

Providing high-quality care in primary care settings

How to make trade-offs

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Abstract

Objective To gain a deeper understanding of how primary care (PC) practices belonging to different models manage resources to provide high-quality care.

Design Multiple-case study embedded in a cross-sectional study of a random sample of 37 practices.

Setting Three regions of Quebec.

Participants Health care professionals and staff of 5 PC practices.

Methods Five cases showing above-average results on quality-of-care indicators were purposefully selected to contrast on region, practice size, and PC model. Data were collected using an organizational questionnaire; the Team Climate Inventory, which was completed by health care professionals and staff; and 33 individual interviews. Detailed case histories were written and thematic analysis was performed.

Main findings The core common feature of these practices was their ongoing effort to make trade-offs to deliver services that met their vision of high-quality care. These compromises involved the same 3 areas, but to varying degrees depending on clinic characteristics: developing a shared vision of high-quality care; aligning resource use with that vision; and balancing professional aspirations and population needs. The leadership of the physician lead was crucial. The external environment was perceived as a source of pressure and dilemmas rather than as a source of support in these matters.

Conclusion Irrespective of their models, PC practices' pursuit of high-quality care is based on a vision in which accessibility is a key component, balanced by appropriate management of available resources and of external environment expectations. Current PC reforms often create tensions rather than support PC practices in their pursuit of high-quality care.

EDITOR'S KEY POINTS

- Findings suggest that a primary care practice's capacity to provide high-quality care is produced by investing ongoing effort in developing a shared vision of high quality and by aligning work processes and resources with that vision, within the parameters of autonomy permitted by the external environment.
- The physician lead played a central role in negotiating compromises (ie, making trade-offs) and creating a team philosophy of cooperation. These factors might be more fundamental to providing high-quality care than others such as clinical and administrative systems and communication structures.
- In the cases examined, statements were made to the effect that primary care reorganization initiatives, coupled with family physician shortages, added to the clinical teams' dilemmas when they were incompatible with the teams' definitions of high-quality care and their strategies for achieving it.

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Prodiguer des soins de grande qualité dans un milieu de soins primaires

Comment faire les choix appropriés

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Résumé

Objectif Mieux comprendre comment différents types d'établissements de soins primaires (SP) utilisent leurs ressources pour prodiguer des soins de grande qualité.

Type d'étude Étude de cas multiples à l'intérieur d'une étude transversale portant sur un échantillon aléatoire de 37 établissements.

Contexte Trois régions du Québec.

Participants Les professionnels de la santé et le personnel de 5 établissements de SP.

Méthodes On a intentionnellement choisi 5 cas qui, d'après les indicateurs de la qualité des soins, montraient des résultats supérieurs à la normale, et ce, afin de comparer les différentes régions, la taille des établissements et les différents modèles de SP. Les données ont été recueillies à l'aide d'un questionnaire structurel; du Team Climate Inventory, lequel a été complété par les professionnels de la santé et par les membres du personnel; et de 33 entrevues individuelles. On a rédigé des histoires de cas détaillées et effectué une analyse thématique.

Principales observations La caractéristique principale retrouvée dans tous ces établissements était la recherche constante de compromis dans le but d'offrir des services conformes à leur conception des soins de grande qualité. Ces compromis portaient sur les 3 mêmes domaines, mais à des degrés différents selon les caractéristiques des cliniques : développer une vision commune des soins de grande qualité; utiliser les ressources conformément à cette vision; et atteindre un équilibre entre les aspirations professionnelles et les besoins de la population. L'effet d'entraînement résultant de l'exemple des médecins était un facteur crucial. Le milieu externe était perçu comme une source de pression et de dilemmes plutôt que de soutien dans ce domaine.

Conclusion Quel que soit leur modèle, les établissements de SP cherchent à fournir des soins de grande qualité en adoptant une vision selon laquelle l'accessibilité est une composante clé, et en cherchant un équilibre entre une gestion appropriée des ressources et les attentes du milieu externe. Les réformes actuelles des SP sont souvent source de tensions plutôt que de soutien pour les établissements de SP qui cherchent à fournir des soins de grande qualité.

POINTS DE REPÈRE DU RÉDACTEUR

- Nos observations laissent entendre que la capacité d'un établissement de soins primaires à fournir des soins de grande qualité est le résultat d'un effort constant visant à développer une vision commune de la notion de grande qualité et à faire coïncider cette vision avec les modes de travail et les ressources, tout en tenant compte de la marge de manœuvre permise par le milieu externe.
- L'exemple des médecins jouait un rôle crucial lors de la négociation des compromis (c.-à-d. au moment de faire des choix) et pour créer une philosophie de coopération au sein de l'équipe. Dans la recherche de soins de grande qualité, ces derniers facteurs pourraient être plus importants que d'autres, comme les systèmes cliniques et administratifs ou les moyens de communication.
- Les cas choisis pour l'étude contenaient des déclarations soutenant que lorsqu'elles sont incompatibles avec les stratégies de l'équipe et sa façon de définir les soins de grande qualité, les initiatives de réorganisation des soins primaires combinées à la pénurie de médecins de famille compliquent les dilemmes auxquels font face les membres de l'équipe.

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Certain characteristics have been associated with high-performing health care systems.¹ However, some have questioned whether the attributes of organizational performance in large health care organizations are relevant to primary care (PC) practices.² Primary care practices often do not have the structures or resources available to more complex organizations to support provision of high-quality care, and resource optimization is especially challenging in PC owing to the undifferentiated and varied nature of clinical problems.²

Canadian provinces, like most industrialized countries, have invested in various new PC models during the past decade, with mixed results.³ Reforms have sought to integrate a largely autonomous work force into the rest of the health care system and bring PC teams into practices largely staffed by physicians. Researchers and decision makers have focused primarily on changes made to PC organization models (physician remuneration, introduction of multidisciplinary teams, enrolment of patients, etc),³ rather than on how PC professionals manage their practices and how their management strategies foster high-quality care and either support or impede effective reforms.

We report the findings of a multiple-case study embedded in a cross-sectional study that identified a certain number of organizational characteristics associated with high-quality care.⁴ The objective of the case study was to gain a deeper understanding of how practices belonging to different PC models managed their resources to provide high-quality care.

METHODS

Context

The province of Quebec is an interesting laboratory because it presents many Canadian variants of PC organization, including traditional fee-for-service practices, community health centres (CHCs), and, since 2001, family medicine groups (FMGs). Family medicine groups consist of 6 to 10 full-time-equivalent physicians who have contracted with regional authorities and the provincial government to register about 1200 patients per full-time-equivalent physician and to provide extended access to care; FMGs receive funding for 2 nurses, a practice manager, and an additional secretary.³ It is important to note that the FMGs integrated in CHCs are functionally under the authority of the physician lead, even if hierarchically members depend on their respective managers (physicians, nurses, support staff).

Study design and case selection

This is a multiple-case study⁵ nested in an observational cross-sectional study of organizational characteristics associated with high quality of care in 3 regions of

Quebec.⁴ Five cases were purposefully selected from the original stratified random sample of 37 practices. To be eligible, cases had to show above-average performance on some of the technical quality and patient experience of care scales used in the study. The appendix of the original publication provided a full description of the quality indicators.⁴ The cases were selected to contrast on region, PC model, and practice size. This sampling strategy was chosen to maximize our ability to identify common practice features or processes related to high quality that would reflect both the diversity of PC settings and the multidimensional nature of high quality in PC, while keeping a manageable volume of data.

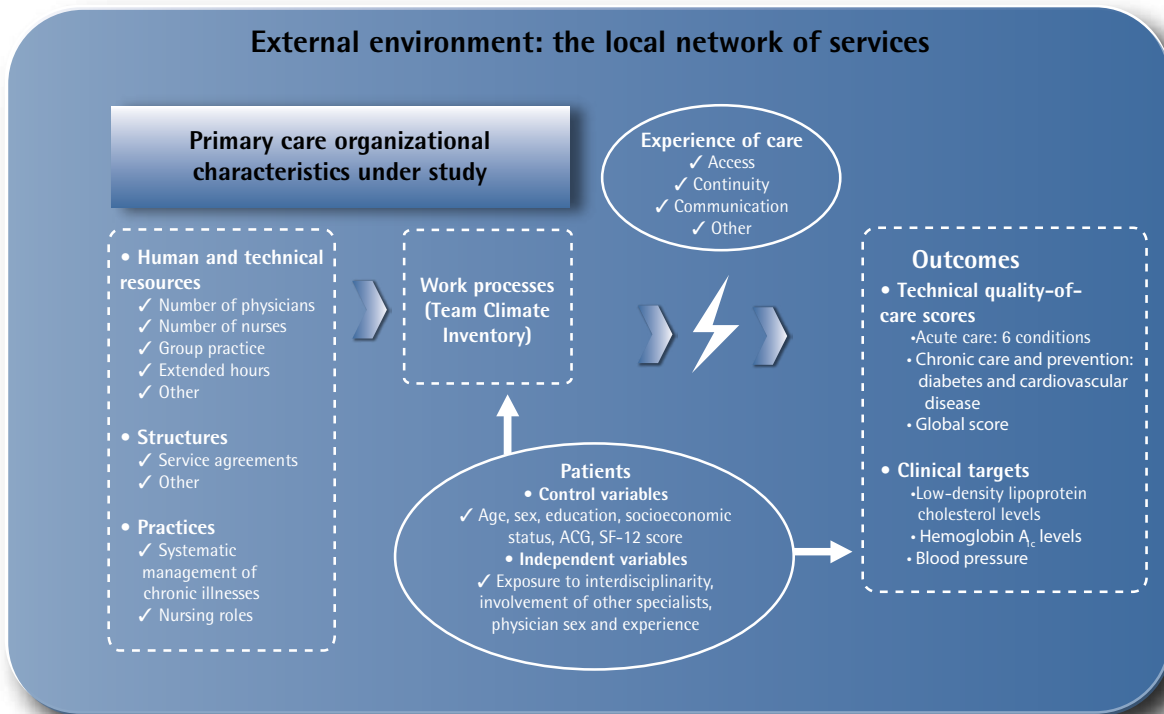
Data collection

Data were obtained from 4 sources: organizational questionnaires completed by the physician lead as part of the observational study; results of the Team Climate Inventory⁶ completed by health care professionals and staff; individual semistructured interviews; and field notes. We used multiple sources of evidence converging on the same set of findings to enrich the analysis and increase the understanding of complex phenomena.^{5,7} The organizational questionnaire, validated in previous research,⁸ provided detailed information on resources, practices, and policies. In all, 33 interviews were conducted (5 to 9 per case) with the physician leads, 2 or 3 other physicians per case, administrative managers (if any), nurses (if any), and 1 or 2 members of the support staff per case. Data collection lasted 2 to 4 days per site.

Interview guide

The interview guide was based on the conceptual framework of the main study developed by Contandriopoulos et al⁹ from Talcott Parsons' foundational work in sociology¹⁰ to study health care systems. According to this framework, the outputs, or results, of an organization depend on its vision, structure, resources, and organizational practices (**Figure 1**). This framework was used by Lamarche et al¹¹ in their evaluation of PC models and is comparable to the one proposed by Hogg et al¹² for their study of PC models in Ontario. Other than the clinic's history and the respondent's professional background, the interviews explored the vision of PC services (definition of high-quality care and the organizational values and philosophy); the internal organization of work (governance, individual roles and tasks, team coordination, participation in the team, attitudes toward innovation, leadership); relationships with the external environment; and the respondent's views on key factors in the organization's success and the challenges ahead. All interviews were conducted by the same researcher (C.D.G.); the principal investigator (M.D.B.) was present on the first day of each case visit and joined in that day's interviews.

Figure 1. Conceptual framework



Experience of care:

- Accessibility (organizational and first contact) (Primary Care Assessment Tool)
- Accumulated knowledge and interpersonal communication (Primary Care Assessment Survey)
- Comprehensiveness (Primary Care Assessment Survey)
- Coordination (Veterans Affairs National Outpatient Care Survey)
- Management of chronic illnesses (Patient Assessment of Chronic Illness Care)

ACG—adjusted clinical group, SF-12—12-Item Short-Form Health Survey.

Data analysis

The interviews were transcribed and coded by the same person (with a background in sociology; C.D.G.) using word processing software. The coding, based on the main dimensions of the interview guide, was validated by 2 additional researchers (with backgrounds in family medicine and health administration; M.D.B. and R.G.) who independently analyzed 3 interviews. The final coding grid was arrived at by consensus. A structured case history was written for each practice, consisting of a narrative summary of all information obtained, triangulated according to the different views expressed and data sources used. This phase was accomplished by 2 researchers (with backgrounds in sociology and family medicine; C.D.G. and M.D.B.). These case histories were shared among the research team, which encompassed different disciplinary perspectives (family medicine,

sociology, public and community health, health administration, and nursing). The researchers were informed by the conceptual framework⁹ and the literature on high-performing organizations.^{1,2,13-19}

Ethics approval

The study was approved by the Research Ethics Committee of the University of Montreal Hospital Research Centre.

FINDINGS

Table 1 describes the 5 cases according to key organizational features and performance in the quantitative assessment of quality.^{4,20} We do not have information on the PC population served in each case, but summary

Table 1. Description of the 5 cases in relation to the selection criteria

CHARACTERISTIC	CASE 1	CASE 2	CASE 3	CASE 4	CASE 5
Structure and resources					
• Region	Rural	Suburban	Suburban	Metropolitan	Suburban
• PC model	PP	FMG	CHC	PP	FMG
• Governance	Professional	Public	Public	Professional	Professional
• Physician remuneration	FFS	Salary	Salary	FFS	FFS
• No. of PC physicians/nurses	5/1	7/2	10/12	3/0	7/1
Quantitative assessment*					
• Team Climate Inventory score	High	Average	Low	High	Average
Technical quality of care[†]					
• Episodic illness	Average	High	High	Low	Average
• Chronic illness plus prevention	High	Average	High	Average	High
Experience of care[‡]					
• Organizational access	High	High	Average	High	Average
• First-contact access	High	High	Low	Average	Average
• Comprehensiveness	High	Average	Low	High	Average
• Contextual knowledge of patients	High	Average	Average	Average	High
• Interpersonal communication	High	Average	Average	High	Average
• Coordination	Average	Average	High	Average	High
Characteristics of recruited patients					
• Mean age, y	63	59	56	61	65
• Women, %	54	50	65	54	36
• Consider themselves poor, %	30	7	14	12	25
• Physical functioning score [§]	Average	High	Average	Average	Average
• Mental functioning score [§]	Average	Average	High	Low	High

CHC—community health centre, FFS—fee for service, FMG—family medicine group, PC—primary care, PP—private practice.

*High, average, and low values were defined in comparison to the mean for the 37 practices sampled in the quantitative component of the study (using *t* tests; $P \leq .05$).

[†]Technical quality of care was assessed from patient charts and administrative databases using validated quality indicators based on clinical practice guidelines.

[‡]Experience of care was measured using validated scales from patient questionnaires. Methodologic details are published elsewhere.⁴

[§]Physical and mental functioning scores were measured using the 12-Item Short-Form Health Survey.²⁰

characteristics of recruited patients are reported. All clinics had been in operation for more than 10 years.

The core feature of all these practices was their ongoing effort to make trade-offs to deliver services that met their vision of high-quality care. The leadership of the physician lead was crucial in negotiating compromise

and achieving high internal coherence between vision and resource allocation, as well as in dealing with pressures from external environments (eg, the local health and social service centres (HSSCs) and the regional health authorities) that were often perceived as interfering with their vision of high-quality care and their use

of resources. These compromises involved the same 3 areas, but to varying degrees depending on clinic characteristics: developing a shared vision of high-quality care; aligning resource use with that vision; and balancing professional aspirations and population

needs. **Table 2** provides highlights on each of these 3 areas for the 5 cases. Although the qualitative assessment was not designed to explain the quality indicators observed, it is interesting to see some coherence between the cases' visions of high-quality care and

Table 2. Highlights on the 3 areas of compromise for the 5 cases

AREA	CASE 1	CASE 2	CASE 3	CASE 4	CASE 5
Developing a shared vision of high-quality care	<ul style="list-style-type: none"> • High-quality care is evidence-based care and timely response to patients' needs • Physician lead active in sharing the vision with other physicians and nurse • Chief secretary active in sharing the vision with the support staff 	<ul style="list-style-type: none"> • High-quality care is the right service, at the right time, in the right place, by the right person • Vision of quality threatened by merger of the CHC with the HSSC • Lost one-third of its physicians when the rest opted to become an FMG to retain control over their vision and resources 	<ul style="list-style-type: none"> • High-quality care is evidence-based care and continuity of care • Professional isolation ("silos") within the CHC meant that vision of high-quality care was shared among physicians, but did not correspond to that of nurses or support staff 	<ul style="list-style-type: none"> • High-quality care is continuity of care, respect, and empathy • Small team; vision is easily shared informally 	<ul style="list-style-type: none"> • High-quality care is continuity of care with a strong emphasis on accessibility • Tensions between members of the team focused on population needs (access to care) and those focused on high-quality care for the registered patients
Aligning resources with the vision	<ul style="list-style-type: none"> • Cooperation as a central guiding principle for teamwork • Nurse's role mostly in managing accessibility and response to unexpected needs of patients, working hand in hand with the team of physicians 	<ul style="list-style-type: none"> • Systematic follow-up of chronic diseases by nurses initially implemented, but when 1 nurse left on sick leave, the team (physicians and remaining nurses) collectively decided to refocus nurses' role on case management and improving accessibility 	<ul style="list-style-type: none"> • Very little control over their resources. Physicians organized continuing medical education sessions to standardize their clinical practice and did a lot of ancillary tasks (faxes, telephone calls, managing appointments) 	<ul style="list-style-type: none"> • Each physician worked autonomously as a solo practitioner • Secretaries who had been at the practice for a long time knew each physician's preferences well and had impressive knowledge of individual patients 	<ul style="list-style-type: none"> • Priority given to registered patients, who have privileged access to walk-in consultation • FMG nurse devoted to systematic follow-up of chronic diseases
Balancing professional aspirations and population needs—pressures from the external environment	<ul style="list-style-type: none"> • Responsibility toward registered patients only • Community involvement (disease prevention and health awareness initiatives) • Ambivalence about the FMG model, seen as restricting the practice's autonomy 	<ul style="list-style-type: none"> • Responsibility toward registered patients only • Difficulties in reaching target patient registration • Pressure coming from authorities' conflicting view of nursing practice in an FMG 	<ul style="list-style-type: none"> • Responsibility toward registered patients mostly • Drastic reduction in walk-in consultations (4 half-days per week) generated a lot of dissatisfaction from the public 	<ul style="list-style-type: none"> • Responsibility toward registered patients only • Precariousness of such a personalized organization • Recruitment as a substantial challenge because practice model no longer consistent with younger doctors' reality 	<ul style="list-style-type: none"> • Responsibility toward both their registered patients and unregistered population • Physician lead seen as a regional leadership figure for the FMG model and PC innovations

CHC—community health centre, FMG—family medicine group, HSSC—health and social services centre, PC—primary care.

approaches to resource management and teamwork, and some of the quality indicators.

Developing a shared vision of high-quality care

A characteristic feature of all the cases was the development of a shared vision of high-quality care. Making services accessible in a timely manner and fostering care continuity were considered as much a part of high-quality care as providing “state-of-the-art” care as defined in clinical practice guidelines.

Quality is, first, providing people with care corresponding to the values of today’s medicine, in the eyes of both my peers and my patients. Right after that, the next thing is accessibility. (Case 1, physician lead)

The vision was clearly explained to newcomers, whether physicians, nurses, or administrative personnel, who were expected to endorse it. These teams would risk losing a team member rather than compromise the vision.

If a new doctor comes and says he doesn’t want to do this, then probably we wouldn’t let him in, because that’s how things work here. We’re not going to risk destroying the atmosphere and breaking up the way we work because of someone who doesn’t want to be a part of it. (Case 1, physician)

However, in teams integrated with CHCs (cases 2 and 3), the vision of high-quality care needed to be negotiated not only internally, but also with the administration of the HSSC that is seen more or less as an external party.

It was extremely emotional because we had been debating it for a long time. The board of directors of the HSSC at the time wanted medical practice to be totally walk-in. We really didn’t agree, and there was lots and lots of tension and many demonstrations to say that’s not what medicine is. (Case 2, physician)

Case 3 was the one that struggled most in this regard. Not being an FMG, physicians, nurses, and administrative personnel were under different administrative leads. It was obvious during the interviews that there was no sentiment of shared vision among the members of the PC team of this CHC. Physicians concentrated their efforts on providing evidence-based care. It is interesting to note that this case rated high on technical quality of care but low on most of the other quality measures, including the Team Climate Inventory score.

Aligning resources with the vision

How the practices mobilized available resources was a determining factor in their ability to ensure accessibility, continuity, and technical quality of care. Although they each had different quantities of resources, there were certain commonalities in how they were used: time slots reserved for unplanned or walk-in consultations with physicians (no practice used advanced access planning per se); close collaboration among members of the organization with no hierarchical impediments; and nurses and support staff being empowered and their roles aligned with the organizational vision. Secretaries were pivotal in orienting patients and felt they were entirely part of the team.

Dr X. has too many appointments, and we’re trying to find ways to make that work better. We think if everyone works together it will be easier. The bosses listen to us and say, “Okay, we’ll try that.” They’re very reasonable. When there are several of us, we find solutions more easily, and that’s why the meetings have gone well. We really made fundamental changes, and it worked. (Case 4, secretary)

Nurses’ involvement was valued in episodic care as much as in chronic care. They were seen as pivotal to ensuring timely access and hence continuity of care. Any internal tensions experienced on this level were created by people who did not fully share the team care philosophy. Here, too, the external environment was often seen as interfering with the practices’ capacity to define professional roles in response to perceived needs. For example, regional and professional authorities believed nursing practice should be dedicated to chronic illness rather than episodic care, thus compromising the capacity to work with nurses to improve access. These tensions were expressed by the cases that had public governance (cases 2 and 3), but also by the FMG in the fee-for-service practice (case 5).

The nurses went to meetings of the Quebec nurses’ federation, and people said, “It’s scandalous that your nurses do phone calls and don’t see patients ... you’re not doing good practice.” It’s not just a question of working hands-on with patients, we ourselves, as physicians, we make phone calls. We don’t put the nurses on triage to undress the patient and take blood pressure readings. For me, family nurses are really case managers, and we work side by side. (Case 2, physician lead)

Indeed, the clinic in case 1 refused to become an FMG to avoid having to negotiate the team members’ roles, even if it was advantageous financially.

We're not planning to become an FMG. From a strictly financial standpoint, it would be advantageous to bring in a structure like that, except that right now we're functional and we're independent. To lose some of our autonomy and be told, "We paid you this and so now" Also, we can choose our nurse colleagues and work on defining their tasks based on the real needs of our clients today and tomorrow, rather than on whatever project is presented to the region and that the FMG has to implement. Having nurses spend 2 afternoons a week at their computer to follow the rules, that's not how I do things here. (Case 1, physician in charge)

Balancing professional aspirations and population needs

Given the shortage of family physicians, ensuring access to care for the entire population poses a moral dilemma not only for most physicians, but also for nurses and support staff. All our cases had, in one way or another, curtailed access by the general population in favour of their registered patients. Successive waves of PC transformations have offered new organizational possibilities, but these have often been accompanied by constraints perceived as contradictory that create quandaries for the clinical teams. The teams in CHCs (cases 2 and 3) appeared to be more affected because of their population-focused mission and public governance, with the attendant lesser autonomy in the management of their resources.

Personally, I'd rather have fewer patients but be able to follow them properly and be available to them. Having twice as many but not being able to see them, this is not for me, but I'm aware that there are many patients in the region who have no doctor. If it was just up to me, my walk-in time would be only for my own patients and those of my colleagues, to increase accessibility for our patients, so that they don't have to go elsewhere for care. (Case 3, physician)

DISCUSSION

Our findings suggest that a PC practice's capacity to provide high-quality care is produced by investing ongoing effort in developing a shared vision of high quality and by aligning work processes and resources with that vision, within the parameters of autonomy permitted by the external environment. The physician lead played a central role in negotiating compromises (ie, making trade-offs) and creating a team philosophy of cooperation.²¹ Our observations concur with the literature on high-performing organizations.^{1,2,14,22} The

observations also suggest that in PC practices, these factors might be more fundamental to providing high-quality care than others, such as clinical and administrative systems and communication structures,¹ which are perhaps more applicable to large, complex organizations such as hospitals.²

However, the literature on the importance of a shared vision of quality is vague and not very informative on the substance of this vision.^{1,23} Our results go deeper, identifying an essential dimension of the best-performing PC organizations: a commitment to accessibility that enables them to offer "the right service, at the right time, in the right place, by the right person," whether the problem is episodic or chronic, in a way that fosters provider continuity of care. We believe this observation is important, as much of the professional discourse on PC quality and professional collaboration has focused on chronic illness care. It has not recognized timely access as being core to quality of care²⁴—certainly not to the same extent as in the Patient's Medical Home model, for example.^{25,26}

Finally, tensions provoked by the external environment raise other unanswered questions, but are important to mention in the context of PC reforms. It is acknowledged that studies assessing team effectiveness generally fail to address characteristics of the broader social and policy contexts.²⁷ In all our cases, statements were made to the effect that PC reorganization initiatives, coupled with family physician shortages, added to the clinical teams' dilemmas when they were incompatible with the teams' definitions of high-quality care and their strategies for achieving it, a situation also reported in Ontario.²⁸ It should be disquieting to see that, in our study, the case that showed the highest internal coherence between vision and resource management and that scored above average on all quality indicators is the one that refused to formally join in PC reform initiatives (case 1). To a certain extent, research confirms their apprehension that the more complex and hierarchical a PC organization is, the more difficult it is to provide accessibility and continuity of care, both important pillars of PC.¹¹

Limitations

This qualitative study presents certain limitations. First, solo practices were excluded, even though they represented a substantial proportion of PC practices in Quebec and other parts of Canada, because we were interested in investigating team processes in the context of the widespread transition to team-based care. Second, our research design did not follow the organizations over time, which might have allowed us to determine more definitively the causes and effects of different aspects of their internal dynamics. However, we used a mixed inductive and deductive approach that built on

and expanded knowledge gained from the literature on high-performing organizations, thereby enhancing the validity of our results.

Conclusion

Transforming PC is a complex undertaking in every jurisdiction. Health care systems in developed countries aiming to reorganize PC have relied largely on modifying health care structures, with mixed results. There is a risk with such a focus of overlooking internal processes related to the production of quality of care and services, such as those identified in this study. Our findings provide a better understanding of the complexity of the forces at play and their deep roots in professional value systems.

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Dr Beaulieu was President of the College of Family Physicians of Canada at the time the paper was submitted. She was not President at the time the study was conducted. The views expressed in the article are those of the authors and do not necessarily reflect those of the College.

Contributors

All authors have revised the article critically and have given final approval of the submitted version, and contributed to the study conception and design and to analysis and interpretation of the data. **Mr Del Grande** contributed with **Dr Beaulieu** to data acquisition and to the drafting of the different versions of the manuscript. **Dr Beaulieu** was the principal investigator and was involved in all the steps of the project and in writing the article.

Competing interests

None declared

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