

Developing the evidentiary basis for family medicine in the global context

The Besrouer Papers: a series on the state of family medicine in the world

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Abstract

Objective To provide an overview of the main methodologic challenges to finding definitive evidence of the positive effects of family medicine and family medicine training on a global scale.

EDITOR'S KEY POINTS

- The Besrouer Conferences, supported by Dr Sadok Besrouer and hosted by the College of Family Physicians of Canada, were initiated to examine how to establish family medicine as an effective, viable, and pivotal element of health systems globally. The first 3 conferences used a collaborative consultation process among Canadian and international partners and resulted in identification of strategic priorities and establishment of the Sadok Besrouer Centre for Innovation in Global Health.
- The Besrouer Papers Working Group was tasked with developing a series of papers to highlight the key issues, lessons learned, and outcomes emerging from the various activities of the Besrouer collaboration. This first paper in the series outlines the methodologic challenges to understanding the importance of family medicine globally.

POINTS DE REPÈRE DU RÉDACTEUR

- Les Conférences Besrouer, bénéficiant de l'appui du Dr Sadok Besrouer et sont organisées par le Collège des médecins de famille du Canada. Elles ont été mises sur pied pour examiner comment établir la médecine familiale comme élément efficace, viable et central des systèmes de santé à l'échelle mondiale. Les trois premières conférences ont fait appel à un processus collaboratif entre les partenaires canadiens et internationaux, et ont identifié les priorités stratégiques et établi le Centre Sadok Besrouer pour l'innovation en santé mondiale.
- Le Groupe de travail sur les documents Besrouer est chargé de rédiger une série de documents mettant en lumière les grandes questions, les leçons apprises et les résultats issus des nombreuses activités de la collaboration Besrouer. Ce premier article de la série décrit les défis méthodologiques à la compréhension de l'importance de la médecine familiale à l'échelle mondiale.

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Composition of the committee In 2012, 2013, and 2014, the College of Family Physicians of Canada hosted the Besrouer Conferences to reflect on its role in advancing the discipline of family medicine globally. The Besrouer Papers Working Group, which was struck at the 2013 conference, was tasked with developing a series of papers to highlight the key issues, lessons learned, and outcomes emerging from the various activities of the Besrouer collaboration. The working group comprised members of various academic departments of family medicine in Canada and abroad who attended the conferences.

Methods We performed a scoping review to determine the methodologic obstacles to understanding the positive effects of family medicine globally.

Report The main obstacle to evaluating family medicine globally is that one of its core dimensions and assets is its local adaptability. Family medicine takes on very different roles in different health systems, making aggregation of data difficult. In many countries family medicine competes with other disciplines rather than performing a gatekeeping role. Further, most research that has been conducted thus far comes from industrialized contexts, and patient continuity and its benefits might not be achievable in the short term in developing countries when clinical demands are great. We must find frameworks to permit strengthening the evidentiary basis of the discipline across different contexts without sacrificing its beneficial adaptability.

Conclusion We believe that developing family medicine and its attributes is one of the keys to achieving global health. These attributes—including its comprehensiveness, adaptability, and attention to both local and patient needs—are key to advancing global health priorities, but make common evaluative frameworks for the discipline a challenge. The spread

of family medicine over the past decades is indirect evidence of its utility, but we need to generate more evidence. We present some of the initial challenges to a broader and more rigorous evaluative framework.

Définir le fondement probatoire de la médecine familiale dans le contexte mondial

Les documents Besroux : une série sur l'état de la médecine familiale dans le monde

Résumé

Objectif Donner un aperçu des principaux obstacles méthodologiques à l'établissement de preuves concluantes des effets positifs de la médecine familiale et de la formation en médecine familiale à l'échelle mondiale.

Composition du comité En 2012, 2013 et 2014, le Collège des médecins de famille du Canada a organisé les Conférences Besroux pour réfléchir au rôle qu'il pourrait jouer pour promouvoir la discipline de médecine familiale dans le monde. Le Groupe de travail sur les documents Besroux, constitué à la Conférence 2013, a été chargé de rédiger une série de documents mettant en lumière les grandes questions, les leçons apprises et les résultats issus des nombreuses activités de la collaboration Besroux. Le groupe de travail est composé de membres de divers départements universitaires de médecine de famille au Canada et à l'étranger, qui ont assisté aux conférences.

Méthodes Nous avons réalisé une étude exploratoire pour déterminer les obstacles méthodologiques à la compréhension des effets positifs de la médecine familiale à l'échelle mondiale.

Présentation du résultat L'adaptabilité locale constitue le principal obstacle à l'évaluation de la médecine familiale sur le plan mondial — il s'agit également d'une de ses dimensions essentielles et de l'un de ses principaux actifs. La médecine familiale joue des rôles très différents dans différents systèmes de santé, ce qui rend l'agrégation des données difficile. Dans de nombreux pays, la médecine familiale est en concurrence avec d'autres disciplines au lieu de jouer un rôle de première ligne. De plus, la plupart des recherches ont été menées jusqu'ici dans des contextes industrialisés : la continuité des soins aux patients et ses avantages pourraient ne pas être réalisables à court terme dans les pays en développement lorsque les exigences cliniques sont élevées. Nous devons trouver

des cadres d'évaluation pour renforcer le fondement probatoire de la discipline dans différents contextes sans sacrifier l'avantage de son adaptabilité.

Conclusion Nous croyons que le développement de la médecine familiale et de ses attributs est l'une des solutions clés pour atteindre l'objectif de la santé mondiale. Ces attributs, y compris sa globalité, son adaptabilité ainsi que sa capacité de répondre aux besoins locaux et à ceux des patients, sont essentiels pour faire avancer les priorités mondiales en matière de santé, mais compliquent l'établissement de cadres communs d'évaluation de la discipline. Le déploiement de la médecine familiale au cours des dernières décennies est une preuve indirecte de son utilité, mais nous devons générer d'autres preuves. Nous présentons certains des obstacles initiaux à un cadre d'évaluation plus large et plus rigoureux.

The Canadian health system is based on the competent family doctor who, in partnership with others, serves a known population and acts as a trusted gatekeeper to more specialized care. There is evidence that such primary care roles have positive effects on both individual and population health. However, it is less certain what the effects of family medicine are in the rest of the world, namely in low- and middle-income countries (LMICs).¹

This paper, the first in a series of Besroux Papers arising out of the Besroux Conferences, is an overview of the main methodologic challenges to finding definitive evidence of the positive effects of family medicine and family medicine training on a global scale. An accompanying commentary (page 578) describes the planning and outcomes of the first 3 Besroux Conferences.² Future papers will focus on proposed methodologies to overcome these challenges, as well as emerging evidence from Canadian partners in LMICs.

Composition of the committee

In 2012, 2013, and 2014, the College of Family Physicians of Canada hosted the Besroux Conferences to reflect on its role in advancing the discipline of family medicine globally. The Besroux Papers Working Group, which was struck at the 2013 conference, was tasked with developing a series of papers to highlight the key issues, lessons learned, and outcomes emerging from the various activities of the Besroux collaboration. The working group comprised members of various academic departments of family medicine in Canada and abroad who attended the conferences.

Report

Being community-oriented gives family medicine the potential to reduce health inequities that are a source of

illness worldwide.² Yet only a proportion of the research on family medicine addresses vulnerable populations.³ Despite this, we cannot rest on our laurels and assume that the existing evidence tends to underestimate our full importance in reducing such health inequities. We must seek and apply the appropriate methodologies to prove the full value of our discipline.

Overall, the evidence for *primary care*, as opposed to *family medicine* specifically (**Box 1**),^{4,5} as a contributor to better health is strong. Researchers such as Barbara Starfield have conclusively shown how primary care improves population health and that the evidence comes from a variety of studies of increasing quality. As Starfield and colleagues have written:

primary care improves health by showing, first, that health is better in areas with more primary care physicians; second, that people who receive care from primary care physicians are healthier; and, third, that the characteristics of primary care are associated with better health.⁵

In Canada, we are at the point of focusing on the latter, stronger evidence—ie, what “characteristics” of primary care (timely access, continuity of care, team-based care, etc) lead to high-quality care and better outcomes. But generalizing such evidence to LMICs is not straightforward. One key distinction between Canada and LMICs is that in Canada family medicine forms the very backbone of our primary care system and serves as the interface with the rest of the health system. In LMICs, family medicine, to the degree that it is present, often competes with other disciplines to form the primary care system and can be effectively bypassed because it can lack a gatekeeper role.

Box 1. Defining terms

Primary health care: the sum of all elements of a health system meant to address basic health needs, including preventive care. The World Health Organization further subdivides primary health care into 4 main areas that together ensure a strong primary health care system⁴: universal health coverage, policy, leadership and governance, and primary care

Primary care: a subset of primary health care. It represents “first-contact access for each new need; long-term person- (not disease-) focused care; comprehensive care for most health needs; and coordinated care when it must be sought elsewhere.”⁵ It is provided by both physicians (general practitioners and family doctors) and nonphysician practitioners

Family medicine: the subset of primary care provided by family doctors—physicians with additional training in family medicine—and the focus of this series

One basic problem is that most of the evidence for primary care (let alone family medicine) emanates from the industrialized world (**Box 2**). For example, Kringos and colleagues’ systematic review of studies on the effects of primary care found that of single-country studies, most came from more affluent regions.³ This is not a surprise: health systems in the developing world struggle with clinical demand—especially at the front line—making research on the effects of interventions (including training initiatives) difficult, even when the required expertise exists.

Further, there are many ways in which primary human health care resources are deployed in LMICs. The role of the generalist physician, and hence the evidence for the effects of generalists, is so variable that comparisons become challenging. Moreover, the widely different settings in which generalist physicians practise further challenge our ability to draw accurate comparisons between countries. Although family medicine-led primary care and community-oriented primary care are increasingly established concepts (to be explored more fully later in this series), their various manifestations from region to region are so diverse as to make comparisons difficult.

Health systems in LMICs often do not readily support a family medicine backbone as we understand it. Many health systems still favour a specialist-driven model of care (or a disease-driven model, also referred to as a *vertical model*). Thus some of the core principles underlying our understanding of family medicine, such as continuity of care, become more difficult to achieve. Some have argued that the predominance of communicable disease and trauma (as opposed to chronic diseases, which are the main burden in more developed countries) makes continuity of care less important, or at least less achievable in the short term, in LMICs.¹

In many parts of the world, continuity is achieved through *team* continuity (the same family physicians

Box 2. Principal methodologic obstacles in expanding the evidentiary basis of family medicine globally

The following are the main methodologic challenges:

- Family medicine takes on very different roles (both with patients and in interfacing with the rest of the system) from health system to health system, thus making aggregation of data difficult
- Most currently available research comes from industrialized contexts
- In many countries family medicine competes with other disciplines rather than performing a gatekeeping role
- Patient continuity (and its benefits) might not be achievable in the short term when clinical demands are great
- Separating the influence of family physicians from that of other primary care professionals is not always easy

advising the same nurses and lay health workers who, in turn, are more likely to see the same patients) and establishing *record* continuity (using centralized clinic records and sharing them with the team). Thus, even though continuity and relationship-driven care are increasingly important,⁶ and form the core of our discipline as we understand it in the West, other characteristics of family medicine such as comprehensiveness and high-quality clinical care might be more needed and relevant overseas. In some instances, continuity is more achievable at the neighbourhood level—corresponding to “community continuity of care”⁷—as practices implement a geographic catchment responsibility to better understand context and thus improve outcomes. This, in fact, is something Canada could learn from as we try to move more care to the community setting.

Separating the evidence related to the work of family doctors from that related to the work of other primary care practitioners can also be challenging. In the United States, the evidence for primary care includes other primary care physicians such as general internists, pediatricians, and gynecologists. In addition, there is emerging evidence supporting shifting tasks away from the medical profession in general: the findings of a relevant meta-analysis are summarized in **Box 3**.⁸

Although family physicians have specific skills, physician assistants might be able to fulfil some of the family physician’s roles while maintaining high patient satisfaction.⁹ In some settings, lay or community health workers¹⁰ provide essential health services to a large

proportion of the population. Even managerial and surgical roles assumed by family physicians in one context can be assumed by nonphysician clinical officers or medical officers in other contexts.^{11,12}

For these reasons we are increasingly focusing on studying and supporting the value of family medicine-led primary care as opposed to the family physician in isolation. This is the trend in Canada as well.

Interestingly, one of the themes of the Besroul process is that high-income countries and LMICs are in fact on convergent paths when it comes to family medicine, and that we can thus learn a lot from one another. High-income countries are struggling to contain costs with the rising burden of chronic disease and trying to move more care to the community and patient home setting. Some LMICs are still struggling to deal with epidemic diseases while adjusting their health systems to the inevitable epidemiologic transition. Both are experimenting with shifting tasks away from primary care physicians for efficiency purposes, all while maintaining or creating a strong family physician-led backbone. There is thus a pressing need for more research on how to achieve this balance in different contexts.

Yet the main obstacle to achieving a common evaluative framework for family medicine and its training programs globally is that one of its core dimensions—and in fact assets—is precisely its local adaptability. Family medicine in a Scandinavian country wishing to achieve efficiency will look very different from family medicine in a post-conflict country, as the needs of the population, the goals of the health system as a whole, and the measurable outcomes will vary considerably. This reminds us of one of the key principles of family medicine: serving a specific population *in its context*. Thus, we must find frameworks to permit strengthening the evidentiary basis of the discipline, across different contexts, without sacrificing its beneficial adaptability. As Stange and colleagues concluded, “it is important to recognize and manage the tension between standardized measurement and the support of desirable heterogeneity based on local needs.”¹³

Conclusion

In this first Besroul Paper, we have briefly outlined the principal evidentiary challenges as we seek to support the development and strengthening of family medicine in LMICs and here at home. As complexity theory would argue, health systems must be *complex adaptive systems* (like raising a child) if they are to achieve their purpose. But most are currently managed as if they were merely *complicated* (like sending a rocket to Mars—a predictable calculation), despite successful health system reform being based on iterative processes and attention to modifying subtle feedback loops. Just like in parenting, the answer will be different from instance to instance.

Box 3. Summary of a systematic review on shifting tasks away from physician-led care: *More research is needed on the effects of novel family medicine training programs overseas to augment usual care.*


A systematic review on shifting tasks away from physician-led care found the following:

- A total of 48 randomized controlled trials assessed the effects of community or lay health worker interventions in primary care, compared with usual care (led by doctors). Benefits included increased childhood immunizations, promotion of breastfeeding, and reduced childhood mortality and morbidity
- A total of 34 studies examined substituting nurse practitioners for doctors working in primary care. Patient outcomes were similar for nurse practitioners and doctors, and patients were more satisfied with care from nurse practitioners. However, there were no associated cost savings
- Only a third of the studies on community health workers and none of the studies on nurse practitioners were carried out in low- and middle-income countries, thus potentially limiting the applicability of the findings to these countries

Data from Lewin et al.⁸

Over the series of Besrour Papers, we will first survey the status of family medicine from region to region before turning to proposed methodologies required to advance the search for evidence of the beneficial effects of family medicine worldwide. Then we will turn our focus to emerging data from some of our partners from LMICs, trying to answer precisely the sorts of questions outlined in this paper. Thankfully, the news coming out of family medicine in LMICs is good.

Despite a clear need for more evidence for family medicine globally, we feel optimistic about its potential. We believe our discipline has the qualities that can help address some of the most pressing health needs around the world. These qualities—including comprehensiveness, adaptability, and attention to both local and patient needs—are key to advancing global health priorities and reducing health inequities, but make common evaluative frameworks for the discipline a challenge: an important challenge, but not an impossible one.

The spread of family medicine over the past decades is indirect evidence of its utility. But our discipline is broad and complex, and will require a larger scaffolding to appreciate its effects and opportunities more fully. Over this series of papers, we hope to add a further platform for crafting a more robust evidentiary framework. 

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Contributors

All authors contributed to the literature review and interpretation, and to preparing the manuscript for submission.

Competing interests

None declared

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