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Scientific research, primary care and family medicine: three essential ingredients for improving the quality of health care

Pesquisa científica, atenção primária e medicina de família: três ingredientes indispensáveis para a melhoria da qualidade do cuidado em saúde

Investigación científica, atención primaria y medicina familiar: tres ingredientes esenciales para la mejora de la calidad de la atención en salud

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Abstract

Despite the great expansion of our specialty in the last 30 years, we are still far from meeting the Brazilian demand for family doctors. We currently represent only 1.4% of the total number of medical specialists in Brazil and less than 5% of the total number of residency vacancies in the country are allocated to family medicine (FM). With 70% of our population covered by the Family Health Strategy, only a small proportion has a family doctor trained in a FM residency program. Unfortunately, we have little scientific evidence to demonstrate the impact of FM training on the quality of care delivered to our patients and to support our ongoing discourse about the unique competencies within FM. This perpetuates a common notion among policymakers and managers that the provision of primary health care (PHC) is simplistic, unchallenging, and easily performed by any physician without specialized training. If FM intends to establish itself as the medical specialty responsible for PHC in Brazil and in developing countries, it needs to be able to study the universe of FM and PHC with the depth and rigor that these complex disciplines demand. As such, building capacity in research represents an important step towards the development of comprehensive PHC with a strong FM foundation. By questioning our practice and trying to see how much of a difference we really make in the care of our patients, we can expand the evidentiary basis of our discipline and demonstrate how much PHC becomes more qualified and comprehensive by having a doctor trained in FM. This essay addresses the difficulties of FM in showing its value and its importance for health systems and presents the vital role that scientific research must play in facing these challenges.

Keywords: Primary Care; Family Practice; Capacity Building.

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Resumo

Apesar do grande crescimento da nossa especialidade nos últimos 30 anos, ainda estamos muito aquém de atender à demanda brasileira por médicos de família. Atualmente representamos apenas 1,4% do total de médicos especialistas no Brasil e menos de 5% do total de vagas de residência no país são destinados à medicina de família e comunidade (MFC). Com 70% da nossa população coberta pela Estratégia de Saúde da Família, apenas uma parcela pequena conta com um médico de família treinado por um programa de residência em MFC. Infelizmente temos poucas evidências mostrando o impacto do treinamento em MFC no cuidado das pessoas e muito do que sustentamos no nosso discurso como diferenciais da nossa prática carece de provas científicas. Isso perpetua uma noção comum entre formuladores de políticas e gestores de que a atenção primária à saúde (APS) é uma área de atuação desprovida de desafios, sem complexidades e possível de ser realizada por qualquer médico sem treinamento especializado. Se a MFC pretende se firmar como a especialidade médica responsável pela APS no Brasil e no mundo, precisa avançar no desenvolvimento de habilidades para a pesquisa, para poder estudar o universo da MFC e da APS com a profundidade e o rigor que a complexidade destas disciplinas demanda. Desenvolver o potencial para a pesquisa representa um passo importante do projeto profissionalizante da nossa especialidade e do amadurecimento da APS. Ao questionarmos nossa prática e ao perguntarmos o quanto realmente fazemos a diferença no cuidado dos nossos pacientes estaremos ampliando a base de evidências da nossa especialidade e demonstrando o quanto a APS se torna mais abrangente ao ter um médico treinado em MFC. Este ensaio aborda as dificuldades da MFC em mostrar seu valor e a sua importância para os sistemas de saúde; e apresenta o papel vital que a pesquisa científica deve ter no enfrentamento destes desafios.

Palavras-chave: Atenção Primária; Medicina de Família; Capacitação.

Resumen

A pesar del gran crecimiento de nuestra especialidad en los últimos 30 años, todavía estamos lejos de satisfacer la demanda brasileña de médicos de familia. Actualmente representamos solo el 1.4% del número total de médicos especialistas en Brasil y menos del 5% del número total de plazas de residencia en el país se asignan a medicina familiar y comunitaria (MFC). Con el 70% de nuestra población cubierta por la Estrategia de Salud Familiar, solo una pequeña parte tiene un médico de familia capacitado por un programa de residencia de MFC. Desgraciadamente, tenemos poca evidencia que muestre el impacto de la capacitación en MFC en el cuidado de las personas, y gran parte de lo que sustentamos como diferencial de nuestra práctica, carece de evidencia científica. Esto perpetúa una noción común entre los formuladores de políticas y los gerentes de que la atención primaria a la salud (APS) es una área de acción carente de desafíos, sin complejidades y que puede ser realizada por cualquier médico sin capacitación especializada. Si la MFC tiene la intención de establecerse como la especialidad médica responsable por la APS en Brasil, necesita avanzar en el desarrollo de habilidades de investigación para estudiar el universo de la MFC y de la APS con la profundidad y rigor que la complejidad de estos disciplinas demandan. El desarrollo de potencial para la investigación representa un paso importante en el proyecto profesional de nuestra especialidad y en la maduración de la APS. Al cuestionar nuestra práctica y preguntarnos si hacemos realmente la diferencia en el cuidado de nuestros pacientes, ampliaremos la base de evidencias de nuestra especialidad y demostraremos cuánto la APS adquire mayor calidad y competencia por tener un médico especialista en MFC. Este ensayo aborda las dificultades de la MFC para mostrar su valor y su importancia para los sistemas de salud y presenta el papel vital que debe desempeñar la investigación científica para enfrentar estos desafíos.

Palabras clave: Atención Primaria; Medicina Famíliar; Capacitación.

INTRODUCTION

In the early days of 2020, the Brazilian Journal do Family and Community Medicine (RBMFC) published an editorial with a provocative title: “Research for what?”.[1] The reason for calling it “provocative” aligns with the journal’s mission to promote the scientific debate and the necessary reflection on the practice of Family Medicine (FM). It is the editor’s prerogative to provoke the audience, inviting them to the job of doing science and keeping the journal’s role in scientific communication alive. None of them – to provoke the audience and doing science – are easy tasks though. With four simple arguments, the editors show us how much energy is wasted during the process of doing science by (1) not addressing relevant questions to the practice; (2) using inappropriate research methods, (3) the hurdles to publishing the results, and (4) the lack of clarity in the articles writing. These difficulties do not tell us a reason why research must be done. The answer to the editorial title comes at the end of the article when the editors propose that if we surpass these four difficulties “… we can make a difference in our patients’ health care and strengthen our academic discipline”.[1] This sentence, although motivating, brings us a second concern, subtle and innocent like the doorknob statement telling us that there is more to be discussed. Those unveiled demands need to be carefully dissected and I hope to do it in this essay about the difficulties of FM in showing its own value

and its importance to health care systems, and the role that scientific research must have in confronting those challenges.

RESEARCH FOR WHAT?

In 2003, the WONCA Conference for Research in Primary Care was held in Kingston, Canada. It gathered 74 Family Physicians (FP) from 34 countries with the aim of exploring the difficulties to conduct research in FM in the world and find ways to promote it. In addition to the publication of several articles about the subject[2,3] and an official document with nine recommendations to promote research in FM and primary care,[4] the conference succeeded to call the attention of the editor of the journal The Lancet. In a controversial editorial,[5] the editor congratulates the participants for their efforts to promote research in FM, but disapproves the idea that an event would be fruitful by asking “Why doing research in FM?” and wishes that this type of event would never happen again.[5] The Lancet’s editor would probably also disapprove RBMFC’s editorial asking “Research for what?”.

In a response letter to the editor,[6] Amanda Howe clarifies that the editor has not captured the full message from the conference, that aimed rather promote the capacity building for research around the world and not to find out what and by which means FM and primary care providers should do research. Contrary to the editor’s belief, FM has not lost its way neither was going through and identity crisis, though it was making important progress towards strengthening the specialty in low- and middle-income countries (LMIC).[6]

As uncomfortable as it may be, The Lancet’s editorial needs to be considered since its criticisms highlight two important weaknesses of FM in Brazil and around the world. To the editor, the conference in Canada was overwhelmed by theoretical models, diagrams, and frameworks. Furthermore, there was a predominant feeling of being “misunderstood by mainstream academia, funding bodies, and journal editors”, an inclination towards qualitative studies and research topics related to the patients’ experience, and finally, a dangerous consensus that the patient in primary care was different from the patient at the hospital or from other medical specialties. The need for a self-definition reflects, beyond the inherent complexity of the specialty, how heterogenous the practice of FM is, showing that there is no single definition of FM, not even a single historical process to be told.[7]

Unlike the medical specialties defined by organs, age, sex, collection of diseases or procedures, it seems to be something in our specialty and in primary care that impels us to answer the question “who are you, FP?”.[8] Textbooks about primary care[9,10] and FM,[11] our competency-based curriculum[12] (the first one among all medical specialties in Brazil), and the EURACT educational agenda[13] are good examples of this urgency.

Besides the discomfort caused by acknowledging the FM need for self-definition and self-affirmation, it was not this comment the most precise and provocative in the editorial, but rather the criticism of the specialty’s lack of pragmatism in showing its value. The argument is simple: if FM contributes in any way to improving health care and the lives of their patients, this contributions is, by definition, measurable.[5] Even if the patient in primary care was different from those in a hospital, the use of the word “improve” denotes a measurable quantity. If we can, quoting the RBMFC editorial, “make a difference in our patients’ health care”, certainly we can show it through empirical research.

In conversations with fellow doctors, recalling histories, and clinical cases, we talk about the difference we have made in the lives of our patients. This difference concerns each individual and occurs based on singular therapeutic measures though. We learn to pay attention to details without forgetting the whole when facing our patients,[14–16] but if we were asked to evaluate our work as doctors of a population, we would certainly be inaccurate and biased. How much of our work as FPs is measured, critically analyzed, and presented as scientific evidence about the impact of our training and our specialty? The first unveiled demand in the conclusion of the RBMFC editorial is precisely this: What is this difference that we so much talk about and what is its real measure?

WHAT DIFFERENCE DOES IT MAKE BEING A FAMILY PHYSICIAN?

The perpetuated paradigm that FPs provide better health care is anchored in a series of arguments, some quantitative such as “we order fewer laboratory tests”, “we prescribe fewer drugs”, “less frequently we refer our patients to secondary care” or “we avoid unnecessary hospitalizations”, and some qualitative, such as “we provide differentiated health care”, “we have a holistic approach” or “we care for people beyond their diseases”. These arguments are taken as universal facts, but how much of it can really be sustained? How much of it went through the sieve of scientific research? Very little, actually.

There is enough evidence today showing that countries with strong and organized primary care have better health indicators,[17] have reduced health inequalities,[18] and are more cost-effective.[19] Together with the conceptual framework for primary care, these were the main contributions of Barbara Starfield to public health. However, she never advocated that primary care should have FPs to be called strong and organized. Neither the Declarations of Alma-Ata[20] and Astana[21] mention our medical specialty – nor any other one – as necessary to primary care. There is a good reason for taking the evidence for primary care as evidence of FM though: Barbara Starfield proved that strong primary care makes better health care systems using data from high-income countries (HIC) that usually have trained FPs as the main medical workforce.[22]

In the Brazilian scenario, we have a significant accumulated body of evidence since the policies promoting primary care were launched,[23] showing that the increased coverage of the Family Health Strategy leads to a reduction in hospital admissions,[24–26] a reduction of cardiovascular deaths[27] and a reduction in infant mortality.[28] Again, the exposure in those analyses is the number of people covered by the Family Health Strategy in a city, not “having a trained FP working in primary care”. Unfortunately, we do not have enough evidence showing the impact of residency training in FM in the provision of health care. This perpetuates a common misconception among policymakers and health managers that the provision of primary care is simplistic, unchallenging, and easily performed by any physician without residency training in FM (RTFM).[29]

Among the few examples are the articles produced during the primary care Reform in Thailand, showing that trained FPs request referrals to secondary care with more meaningful and clear information about the patient[30] and that patients fell more satisfied having medical consultations in primary care with trained FPs instead of doctors without RTFM.[31] In South Africa, the quality of care perceived by colleagues in the same primary care clinic was in favor of trained FPs when compared to other doctors without RTFM.[32] In Brazil, there has been reported that patients with Heart Failure have a lower risk of been hospitalized when their Family Health Team has a FP in charge.[33]

One would expect that in HIC there would be more studies evaluating the impact of RTFM on patients' health care and quality of life. However, in these countries, this question can have a different meaning, since training is mandatory to practice in primary care and FPs make up a large part of the medical workforce. What has been studied are comparisons between different primary care models,[34] comparisons of clinical management between FPs and other medical specialties,[35] the satisfaction of patients with cancer having their health care being delivered by their FP[36] and the academic performance during RTFM as a predictor of professional performance in the future.[37]

An Australian study in 2004 showed that doctors certified by the Royal Australian College of General Practitioners were less likely than doctors without the same certification to prescribe antibiotics and anti-inflammatories, to performed procedures and to spend more time with their patients.[38]

In summary, FM research in HIC approach topics that goes beyond legitimation, but rather look at quality improvement and quality of health care. Here is where the second unveiled demand from the RBMFC's editorial is hidden: Before trying to use research as a way to strengthen our specialty, we should answer the question "why do we need to strengthen FM as a medical specialty and an academic discipline?"

STRENGTHENING FAMILY MEDICINE IN BRAZIL

Unlike HIC, strengthening FM in Brazil still means legitimizing the specialty among other medical specialties, in medical schools and among health managers and policymakers. Over the past 30 years, FM in Brazil has experienced impressive growth of the number of professionals, of the number of residency programs[39] and of its political participation – Curitiba, Rio de Janeiro, and Porto Alegre had FPs as the heads of their health departments in recent years.

Thanks to the national policies promoting the expansion of primary care since 1994, a new generation of young doctors could faced FM as a viable career to embrace.[39] The reason for this growth cannot be credited to the scientific evidence that trained FPs are more effective in providing primary care but in the expansion of this market that offered a new medical career for the new generations. Many of them enrolled in RTFM programs trying to develop the necessary competencies to face the complex and full of uncertainty universe of primary care practice.[40]

With the expansion of RTFM programs in the last 20 years, many cities have been making financial incentives to further expand the number of doctors training to become a FP, acknowledging that having a trained FP working in primary care is better than having doctors without RTFM.[41,42]

Despite this optimistic scenario, we still represent a mere 1.4% of the total number of specialist doctors in Brazil and less than 5% of the total number of residency vacancies in the country are allocated to FM.[43] Although expanding job opportunities in primary care and increasing the provision and retention of doctors, the "Mais Médicos" and the "Médicos pelo Brasil" Programs are federal initiatives that in terms of professional training and capacity building cannot be compared to a residency program, the gold-standard for medical training.[44] In other words, we still fall short of meeting the demand of our country for FPs. Today 70% of the population is served by a Family Health Team but most of them have only nurses and community health agents as health care providers and a very small fraction has a FP trained in a RTFM program as their medical professional.

In the book *A Question of Competence*[45] – a key reference in the subject of medical education – the authors present a very singular idea about the concept of competence. For them, every attempt in

medical education to establish whether or not someone is competent to perform a certain task reveals less about the educational process itself and more about delineating a role in the society and describing a professional project.

When stating what are the competencies needed to do a job, it is stated, first, what other professions would not be competent to do it and, second, what kind of training would be required to develop the competencies to do it. By affirming that RTFM is the gold-standard of medical training for primary care, it is stated that Family Health Teams that have doctors without RTFM, will perform, on average, worse than those with a trained FP as the doctor in charge.

Based on this idea, I ask: If FPs are indeed doctors more competent to work in primary care, should not we be more concerned with showing the impact of RTFM on the quality of care and less with delineating the FM knowledge, skills and attitudes in our curriculum?[12] wouldn't it be a better way to strengthen our discipline showing through scientific evidence how much quality does primary care lose by not having trained FPs as part of the health care teams?

STRENGTHENING FAMILY MEDICINE AROUND THE WORLD

Far from being an exclusive Brazilian issue, the question above reflects a real dilemma for many LMIC,[46] that is the need to develop the evidentiary basis for FM.[47,48] In order to create them, the demographics and epidemiological aspects of each country and the idiosyncrasies of each community and practice must be taken into account. However, considering all those aspects to create this evidentiary basis, will not be enough to help FM to thrive in LMIC. Any attempt to do it will be useless if the primary care we want to our communities is not taken into consideration.[49] There is a historical reason for making this statement and it goes back in time to the public health debate that followed the World Health Organization conference in 1978. The Alma-Ata Declaration[20] proposed primary care as a means to achieve universal access to health care. Nevertheless, how it should be delivered and what would be the path to achieve it rested unclear and vague throughout the general lines of the document.

After 1978, two different branches polarized the debate about how primary care should be delivered.[50] One aligned with the idea that primary care should organize the health care system and be as comprehensive as possible and another in favor of low-cost vertical programs aiming prevalent and sensitive health problems. The latter became known as selective primary care or the GOBI model, which is the acronym in English for the four actions of this model: Growth monitoring, Oral rehydration therapy, Breastfeeding, and Immunization. All these actions are, at least in Brazil, already consolidated and nurses and nurse technicians usually manage them very well. Even so, we cannot say yet that the Brazilian primary health care system has already overcome these strictly selective programs. In the same way that we are experiencing a polarized epidemiological transition,[51] with a high burden of morbidity due to chronic-degenerative diseases coexisting with infectious diseases, Brazilian primary health care system is still in transition and maintains selective programs while assimilates new technologies and increasingly becomes more comprehensive in its scope of actions. Vertical programs for Hypertension, Diabetes, Prenatal care, Child care and Tuberculosis,[52] and the payment-for-performance policies recently adopted by the Médicos pelo Brasil Program targeting the same vertical programs,[44] are some of the examples showing how selective the Brazilian primary care

still persists. These vertical programs still organize most of the health care delivered to the communities, prioritizing measurable results that are meaningful for health managers but not so much for the patients.

In the global health scenario, the Primary Health Care Performance Initiative[53] (PHCPI) - a partnership between the World Bank, the World Health Organization, and the Bill & Melinda Gates Foundation - is another good example of the persistence of the GOBI model among policymakers. Its main objective is to promote the growth of primary care in LMIC by monitoring performance indicators and making comparisons between countries.

Using Donabedian's framework and classic public health indicators,[54] both the PHCPI and its younger version, the Primary Health Care Progression Model,[55] make three critical mistakes when trying to assess primary care in LMIC: (1) they do not consider that the development of primary care goes hand in hand with social development, which is an important confounder for all health indicators; (2) they use classic public health indicators such as vaccination coverage, availability of medicines and health expenditure per-capita, which do not reflect the complexity of primary care; and (3) they do not distinguish selective programs in primary care from what should be a comprehensive primary care. The efforts made by these initiatives to put primary care and its development in LMIC in the global health agenda must be celebrated. However, if they keep looking at classic indicators and not helping policymakers from LMIC to get a better understanding of how to move from selective to comprehensive primary care, those efforts will be worthless. Not surprisingly, they fall into the same mistake that the Declarations of Alma-Ata and Astana have fallen into, i.e. keeping FM and everything that the medical specialty can contribute to making primary care more comprehensive out of the debate.[56–58]

RESEARCH FOR WHAT, AFTER ALL?

Do we need, after all, as the editorial from the RBMFC was saying, research to "make a difference in our patients' health care"? Yes, we definitely need to do it. However, if it still needs to be done, it must demonstrate "how much", "in what way", "for which patients", "at what cost", "saving how much resources" and "in what conditions" we make a difference.

Research in FM has to deepen this vague notion of "making a difference in health care" so it can be explored, dissected, unveiled and, above all, questioned.[2] Every research starts by questioning a universal truth[59] and, in this case, the most universal question we can ask is "do we really make a difference?". There are, however, several methodological issues to be overcome,[60] since the very characteristics of FM make any scientific approach a great challenge. If RTFM enables medical professionals to have a holistic approach towards their patients and a comprehensive scope of practice, measuring the impact of this training can be more complex than it would be for other medical specialties defined by procedures or a set of morbidities.

The Lancet's editorial suggests that FM should focus on studying the role of the family in health care. From their point of view, this would be the main characteristic of the specialty. In this regard, they are mistaken, as they do not realize that this is just one characteristic among many. Beyond being a good clinician, FPs need to advocate for their patients, consider continuity of care in each therapeutic decision, share decisions and, especially, coordinate care with other professionals, family members and the community. None of these aspects can be easily addressed through empirical research, although being present in every consultation. Mixed methods research[61] surely has a lot to contribute to this field.

As for “strengthening our academic discipline”, we have a task that involves not only FM but also primary care. To achieve universal access to a strong and organized primary care in LMIC, we need research carried out in primary care to identify its weaknesses and guide its development in places where primary care is still incipient.[62] If FPs really provide better health care to patients, this means that they improve the quality of primary care, moving it away from merely selective programs and making it increasingly comprehensive, patient-centered and more effective.

It is possible to research primary care without considering the role of FM, but the opposite is not. By strengthening FM through scientific research, primary care is also strengthened. This is the main contribution of FM to health care systems and we are socially accountable for making it happen.[63] Moving away from the hospital environment and traditional medicine was important for FM to distinguish itself from other medical specialties.[45] In HIC countries,[64] FPs went through the same movement and ended up creating a gap between practice and research, due to the belief that research represented the depersonalized and truth-holding medicine – just the opposite of their professional project.

More recently, the Practice-based Research Networks[65–67] (PBRN) and their North American[68,69] and European[70] associations have brought FM close to research and the scientific method again. Through conferences, training courses, and cooperation between teaching and practice entities, these networks have contributed enormously in the quest to improve the quality of care by promoting research in primary care.[71]

Researching is nothing more than questioning the truths before us. This is what we are doing when we question our own practice, when we seek for solutions with our health care team, or when we ask ourselves if we could have done more or better for a patient. It is not on a whim that we question the decisions we make, but we do it out of responsibility for our work. If we want to “make a difference in our patients’ health care and strengthen our academic discipline” we need to detail what difference we are talking about and, in doing so, show how the competencies developed during RTFM make primary care more comprehensive, effective and person-centered. Otherwise, we should hope that policymakers will eventually come to the conclusion that it is necessary to invest in capacity building of the health care workforce in primary care, and will finally understand that these investments will lead to positive results for the entire population and for the health care system.

This must be done not only because we love what we do, but because loving what we do asks it to be done. Quoting the novelist João Guimarães Rosa: “a frog does not leap out of grace, but out of necessity”.[72]

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