

Research for what?

Pesquisar para quê?

¿Investigar para qué?

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Abstract

To contribute to primary health care, research in family and community medicine needs to avoid four factors that have led to wasted biomedical research worldwide: irrelevant research questions; inadequate methods to achieve the research objectives; slow and inadequate publication of results; obscure and not transparent reporting. In this editorial, we introduce measures for authors to ensure the impact of their research, and new editorial policies from RBMFC.

Keywords: Research; Research Design; Scholarly Communication; Preprint; Investigative Techniques

Resumo

Para contribuir com a atenção primária à saúde, a pesquisa em medicina de família e comunidade precisa evitar quatro fatores que têm levado ao desperdício da pesquisa biomédica em nível mundial: questões de pesquisa irrelevantes; métodos inadequados para alcançar os objetivos da pesquisa; lentidão e inadequação da publicação dos resultados; relato da pesquisa obscuro e pouco transparente. Neste editorial, introduzimos medidas para os autores garantirem o impacto de sua pesquisa, e apresentamos novas políticas editoriais da RBMFC.

Palavras-chave: Pesquisa; Projetos de Pesquisa; Comunicação Acadêmica; Pré-Publicação; Técnicas de Pesquisa

Resumen

Para contribuir a la atención primaria de salud, la investigación en medicina familiar y comunitaria debe evitar cuatro factores que han llevado a la pérdida de investigación biomédica en todo el mundo: preguntas de investigación irrelevantes; métodos inadecuados para lograr los objetivos de investigación; lentitud y publicación inadecuada de resultados; oscuridad e falta de transparencia del informe de investigación. En este editorial, presentamos medidas para que los autores garanticen el impacto de su investigación, y presentamos nuevas políticas editoriales de RBMFC.

Palabras clave: Investigación; Proyectos de Investigación; Comunicación Académica; Preimpresión; Técnicas de Investigación

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We would like to invite you, as a researcher, to a reflection. You may work at the coal face, and have no protected time for research; you may be at the academy, and yet your paycheck little reflects your scientific output; you probably have a hard time getting external funding. Why do you do research then?

We believe one of the main reasons is sense of duty. In doing research, the researcher contributes to the care of patients in primary care and helps to consolidate family and community medicine as an academic discipline.¹ Doing research is one way to make a difference.

Unfortunately, not all research makes a difference. Futile research results in frustration for researchers and wasted research funding, but perhaps the most important consequence is the ethical dimension of participants being exposed to discomfort and/or risk without any benefit being drawn from the research. Therefore, we invite you to reflect again, this time on the four factors that are believed to put most medical research to waste.^{2,3}

Does your research address relevant issues? There is no point in conducting a new research to answer a question that already has a satisfying answer. In addition, researching issues that are not relevant to the social, healthcare and educational context means effectively draining the few human and financial resources available. Therefore, every research project must be supported by an adequate literature review, verifying the state of knowledge about the research questions under consideration. In addition, it is recommended to involve health services, their patients and communities in prioritizing and specifying research issues.^{2,4-10}

Does your research use methods that fit the purpose? Valid results are a consequence of appropriate methods, which in turn depend on the articulation of a methodological expertise with well-defined research questions. Since hardly anyone will be able to master alone all the methodological issues involved in a project, research practice is increasingly a collaborative activity. Some ethical or methodological flaws are irreparable, so this collaboration must be established before data is collected.^{2,11}

Is your research published in a timely manner? Knowledge was made to circulate, and research only makes a difference if it reaches the target audience. When a relevant question is chosen, and appropriate methods are employed, research can and should be published even if its results are “negative”, contrary to the researchers’ convictions, or otherwise surprising.^{2,12,13} When choosing a peer-reviewed journal for publication, it is recommended to mind the journal’s scope, rejection rate and time to approval and/or publication. Advance deposit in the medRxiv preprint repository,¹⁴⁻¹⁶ preference for open access journals,^{17,18} and further dissemination by the authors on social networks,¹⁹ without neglecting the sharing of results with the research participants²⁰ are also recommended. Clinical trials should be registered prior to initiation, and at the end the registry should be updated with the research findings.²

Is your research reported transparently and clearly? In order to have impact, research should be described in sufficient detail so that its methods can be replicated by the target audience.² In addition, methods and results should be fully and fairly reported in order to allow an adequate judgment about the validity of the results and the implications of the conclusions.² To this end, researchers should be aware of and follow the EQUATOR Network research reporting guidelines such as STROBE, SRQR and PRISMA, as well as their extensions.^{2,21} In addition, research protocols, research material (such as questionnaires or

software) and anonymised data should be properly cited and, if created by researchers, should be deposited whenever possible in repositories such as OSF and Zenodo.^{12,22,23}

In this regard, RBMFC (Revista Brasileira de Medicina de Família e Comunidade) employs good editorial practices such as valuing rigorous methods instead of “statistically significant” results; making editorial decision based merely on the merits of the manuscript, without artificially restricting the number of articles; ensuring the agility of the editorial process; requiring prior registration of clinical trials; and adopting the recommendations gathered in the EQUATOR Network.

From 2020, RBMFC intensifies its efforts to avoid wasteful research on family and community medicine in Brazil and Ibero-America. Both desk review and peer review will be more rigorous about the manuscript's introduction having to clearly articulate the rationale for research. In accordance with the International Committee of Medical Journal Editors (ICMJE), RBMFC already required clinical trials to state in the methods whether and under what conditions research data would be shared; this requirement will now be extended to all research articles. Finally, all research articles will have to inform if and how were patients or the community involved in the research design and/or execution.

Brazilian and Ibero-American research in family and community medicine and primary care has matured over the years and, we hope, will advance another step thanks to these new editorial policies. This way we can make a difference in the care of our patients and strengthen our academic discipline.

Conflict of interest

LFF and TDS participate in a research project to list research priorities in family and community medicine in Brazil.

References

1. Maeseneer JMD, Sutter AD. Why Research in Family Medicine? A Superfluous Question. *Ann Fam Med*. 2004;2(suppl 2):S17–22. <https://doi.org/10.1370/afm.148>
2. Chalmers I, Glasziou P. Avoidable waste in the production and reporting of research evidence. *Lancet*. 2009;374(9683):86–9. [https://doi.org/10.1016/S0140-6736\(09\)60329-9](https://doi.org/10.1016/S0140-6736(09)60329-9)
3. Glasziou P, Chalmers I. Research waste is still a scandal—an essay by Paul Glasziou and Iain Chalmers. *BMJ*. 2018;363:k4645. <https://doi.org/10.1136/bmj.k4645>
4. Green LW. Making research relevant: if it is an evidence-based practice, where's the practice-based evidence? *Fam Pract*. 2008;25(suppl_1):i20–4. <https://doi.org/10.1093/fampra/cmn055>
5. Orlandin EAS, Moscovicci L, Franzon ACA, Passos ADC, Fabbro ALD, Vieira EM, et al. Uma agenda de pesquisa para a Atenção Primária à Saúde no estado de São Paulo, Brasil: o estudo ELECT. *Interface - Comun Saude Educ*. 2017;21(61):349–61. <https://doi.org/10.1590/1807-57622016.0103>
6. MacFarlane A, Galvin R, O'Sullivan M, McInerney C, Meagher E, Burke D, et al. Participatory methods for research prioritization in primary care: an analysis of the World Café approach in Ireland and the USA. *Fam Pract*. 2017;34(3):278–84. <https://doi.org/10.1093/fampra/cmz104>
7. O'Neill B, Aversa V, Rouleau K, Lazare K, Sullivan F, Persaud N. Identifying top 10 primary care research priorities from international stakeholders using a modified Delphi method. *PLOS ONE*. 2018;13(10):e0206096. <https://doi.org/10.1371/journal.pone.0206096>
8. Crocker JC, Ricci-Cabello I, Parker A, Hirst JA, Chant A, Petit-Zeman S, et al. Impact of patient and public involvement on enrolment and retention in clinical trials: systematic review and meta-analysis. *BMJ*. 2018;363:k4738. <https://doi.org/10.1136/bmj.k4738>

9. Nyanchoka L, Tudur-Smith C, Thu VN, Iversen V, Tricco AC, Porcher R. A scoping review describes methods used to identify, prioritize and display gaps in health research. *J Clin Epidemiol*. 2019;109:99–110. <https://doi.org/10.1016/j.jclinepi.2019.01.005>
10. Greenhalgh T, Hinton L, Finlay T, Macfarlane A, Fahy N, Clyde B, et al. Frameworks for supporting patient and public involvement in research: Systematic review and co-design pilot. *Health Expect Int J Public Particip Health Care Health Policy*. 2019;22(4):785–801. <https://doi.org/10.1111/hex.12888>
11. Ioannidis JPA, Greenland S, Hlatky MA, Khoury MJ, Macleod MR, Moher D, et al. Increasing value and reducing waste in research design, conduct, and analysis. *Lancet*. 2014;383(9912):166–75. [https://doi.org/10.1016/S0140-6736\(13\)62227-8](https://doi.org/10.1016/S0140-6736(13)62227-8)
12. Chan A-W, Song F, Vickers A, Jefferson T, Dickersin K, Gøtzsche PC, et al. Increasing value and reducing waste: addressing inaccessible research. *Lancet*. 2014;383(9913):257–66. [https://doi.org/10.1016/S0140-6736\(13\)62296-5](https://doi.org/10.1016/S0140-6736(13)62296-5)
13. Brown T. It's time for AllTrials registered and reported. *Cochrane Database Syst Rev*. 2013;(4):ED000057. <https://doi.org/10.1002/14651858.ED000057>
14. Oakden-Rayner L, Beam AL, Palmer LJ. Medical journals should embrace preprints to address the reproducibility crisis. *Int J Epidemiol*. 2018;47(5):1363–5. <https://doi.org/10.1093/ije/dyy105>
15. Peiperl L, on behalf of the PLOS Medicine Editors. Preprints in medical research: Progress and principles. *PLOS Med*. 2018;15(4):e1002563. <https://doi.org/10.1371/journal.pmed.1002563>
16. Rawlinson C, Bloom T. New preprint server for medical research. *BMJ*. 2019;365:l2301. <https://doi.org/10.1136/bmj.l2301>
17. Davis PM. Open access, readership, citations: a randomized controlled trial of scientific journal publishing. *FASEB J Off Publ Fed Am Soc Exp Biol*. 2011;25(7):2129–34. <https://doi.org/10.1096/fj.11-183988>
18. Davis PM, Lewenstein BV, Simon DH, Booth JG, Connolly MJL. Open access publishing, article downloads, and citations: randomised controlled trial. *BMJ*. 2008;337:a568. <https://doi.org/10.1136/bmj.a568>
19. Gunaratne K, Haghbayan H, Coomes EA. Tweeting Authors: Impact on Research Publicity and Downstream Citations. *J Gen Intern Med*. 2019; <https://doi.org/10.1007/s11606-019-05454-0>
20. Taylor J. Reporting research findings to participants is an ethical imperative. *BMJ*. 2019;367:l6324. <https://doi.org/10.1136/bmj.l6324>
21. Glasziou P, Altman DG, Bossuyt P, Boutron I, Clarke M, Julious S, et al. Reducing waste from incomplete or unusable reports of biomedical research. *Lancet*. 2014;383(9913):267–76. [https://doi.org/10.1016/S0140-6736\(13\)62228-X](https://doi.org/10.1016/S0140-6736(13)62228-X)
22. Wilkinson MD, Dumontier M, Aalbersberg IJ, Appleton G, Axton M, Baak A, et al. The FAIR Guiding Principles for scientific data management and stewardship. *Sci Data*. 2016;3:160018. <https://doi.org/10.1038/sdata.2016.18>
23. Chauvette A, Schick-Makaroff K, Molzahn AE. Open Data in Qualitative Research. *Int J Qual Methods*. 2019;18:1609406918823863. <https://doi.org/10.1177/1609406918823863>