

Evidence-Based Public Health and Preventive Medicine: Role of Scholarly Biomedical Journals

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Abstract

The aim of this short communication was to update the clinicians and researchers in the field of public health and preventive medicine, through an evidence-informed integrative overview of studies from PubMed. There were studies analyzing public health journals for their characteristics of editorial boards, authorship (one study on national representation, and two on region-wise contribution), language of publication, health needs and health functions, Chinese contribution, two studies on impact factor, two studies on randomized controlled trials (one on assessment of quality, one on impact of CONSORT guidelines), and one study on referencing accuracy. There are more analytical studies required so as to provide recommendations for evidence-based public health and preventive medicine.

Keywords: Evidence-Based Public Health; Evidence-Based Preventive Medicine; Journals' Policies; Journals' Analysis; Research Evidence.

Aims

The aim of this short communication was to update the clinicians and researchers in the field of public health and preventive medicine, through an evidence-informed integrative overview of studies from PubMed.

Editorial representation

Mohammadi et al [1], assessed the nation-specific representation in editorial positions of 37

international public health journals, and calculated public health editor equity gap ratio' (PHEEGR) depending upon the population per million in those countries. Low income countries were not represented in the leadership positions and middle income countries were only 5%. The PHEEGR gap for editorial positions between highest to the lowest representation of countries was 16/1 for chief editors, 12/1 for associate editors, 335/1 for editorial boards and 202/1 for associate editorial boards.

Bibliographic coverage

Revista Chilena de Infectología has recently been accepted for index listing in the Index Medicus via the MEDLINE database. This facilitates a conscientious global effort to better represent regional

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journals in indexing systems and to make access easier for persons in less wealthy nations to medical and public health information via the internet, which is important to the context of production and dissemination of Chile's national medical and public health literature [2].

Regional publications

There were numerous public health and epidemiology journals in Non-English languages such as Portuguese or Spanish, published mainly from Brazil and some from Portugal. The regional databases index those journals and most of them open-access with direct links in the indexing databases [3]. Similarly, Baussano et al [4] reported on epidemiology and public health journals in three Western European languages: French, German and Italian, their struggle for international scientific competition in terms of restricted circulation and professional impact.

Grimaud and Devaux [5] reviewed articles published in six French public health journals, and one French/English language Canadian journal as part of the collaborative study SPHERE (Strengthening Public Health Research in Europe), to describe public health publications in the French language according to health needs and public health functions. Of total 3984 original research articles, 51% were on health needs and of these, 71% were about non-communicable diseases, 25% communicable, maternal and prenatal conditions and 5% injuries. 92% of the articles could be assigned a public health function code. Health monitoring and health services research accounted for 80% of references from French journals. Only 9% of articles from French journals were related to prevention, which was lower than that in the Canadian journal.

Zheng et al [6] investigated the research output in public health from 3 major regions of China: mainland China (ML), Hong Kong (HK) and Taiwan (TW) in 2587 papers published in 105 public health-related journals. ML had more publications followed by TW and HK while TW's articles were cited more than those from HK and ML, which corresponded with publishing in high impact factor journals.

Impact factor

López-Abente and Muñoz-Tinoco [7] assessed time trends in journal impact factor (IF) of 80 Public Health journals. The IF ranged from 0.18 to 5.2 and there was no association between annual change and mean IF

for the journals. Rezaei et al [8] examined 142 journals titles that were listed in Journal Citation Report (ISI Thomson) in the field of "Public, Environmental and Occupational Health" 50% of papers had no citations and 89.4% had less than 6 citations.

Randomized controlled trials

Fahey et al [9] assessed the quantity and methodological quality of 91 RCTs published in five UK-based public health journals (The International Journal of Epidemiology, Health Trends, Journal of Public Health Medicine, Public Health and The Journal of Epidemiology and Community Health). The most common topic in RCTs being prevention strategies, and there was an increasing trend in number of RCTs without a detectable improvement in the quality of reports. Randomization was reported in 91% of trials, but the description of details about the process of randomization was poor.

Savithra and Nagesh [10] evaluated the impact of CONSORT on quality of reporting of 114 randomized controlled trials (RCTs) in public health dentistry journals (Community Dentistry and Oral Epidemiology (CDOE), Community Dental Health (CDH), Journal of Public Health Dentistry (JPHD) and Oral Health and Preventive Dentistry (OHPD)). The trials adhered to CONSORT guidelines only for Title, abstract, discussion and conclusion, whereas poor compliance was evident for methodology section. The quality of reporting of RCTs was found to be generally poor in public health dentistry journals. The quality of reporting did not substantially improve due to CONSORT guidelines.

Referencing accuracy

Eichorn and Yankauer [11] selected 50 references from three public health journals and found that 31% of the 150 references had citation errors, and 10% had major error (reference not locatable). 30% of them differed from authors' use of them and 15% had a major error (cited paper not related to author's contention).

There were studies analyzing public health journals for their characteristics of editorial boards, authorship (one study on national representation, and two on region-wise contribution), language of publication, health needs and health functions, Chinese contribution, two studies on impact factor, two studies on randomized controlled trials (one on assessment of quality, one on impact of CONSORT guidelines), and one study on referencing accuracy. There are more analytical studies required so as to

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References

1. Mohammadi NK, Zaree F, de Leeuw E, Emamjomeh M. Share of Nations in 37 International Public Health Journals: An Equity and Diversity Perspective towards Health Research Capacity Building. *Iran J Public Health*. 2011; 40(4): 129-37.
 2. Vermund SH, Acuña G. Regional journals in medicine and public health: a look to the future upon the indexing of the *Revista Chilena de Infectología*. *Rev Chilena Infectol*. 2005; 22(1): 11-20.
 3. Barreto ML, Barata RB. Public health and epidemiology journals published in Brazil and other Portuguese speaking countries. *Emerg Themes Epidemiol*. 2008; 5: 18.
 4. Baussano I, Brzoska P, Fedeli U, Larouche C, Razum O, Fung IC. Does language matter? A case study of epidemiological and public health journals, databases and professional education in French, German and Italian. *Emerg Themes Epidemiol*. 2008; 5: 16.
 5. Grimaud O, Devaux S. Health needs and public health functions addressed in French public health journals. *Eur J Public Health*. 2007; 17(Suppl 1):38-42.
 6. Zheng ML, Yang LL, Shen Y, Shu Q. Publications in ISI-indexed public health journals from mainland China, Hong Kong and Taiwan during 1999-2008. *Med Sci Monit*. 2011; 17(7): SR21-7.
 7. López-Abente G, Muñoz-Tinoco C. Time trends in the impact factor of Public Health journals. *BMC Public Health*. 2005; 5: 24.
 8. Rezaei E, Navidi I, Rokni M, Pourmand M. Assessing the effect of highly cited papers on the impact factor of journals in the field of public health. *Iran J Public Health*. 2012; 41(12): 84-5.
 9. Fahey T, Hyde C, Milne R, Thorogood M. The type and quality of randomized controlled trials (RCTs) published in UK public health journals. *J Public Health Med*. 1995; 17(4): 469-74.
 10. Savithra P, Nagesh LS. Have CONSORT Guidelines Improved the Quality of Reporting of Randomized Controlled Trials Published in Public Health Dentistry Journals? *Oral Health Prev Dent*. 2013 Mar 15. doi: 10.3290/j.ohpd.a29359. [Epub ahead of print].
 11. Eichorn P, Yankauer A. Do authors check their references? A survey of accuracy of references in three public health journals. *Am J Public Health*. 1987; 77(8): 1011-2.
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