Ciência & Saúde Coletiva Journal at the national and international context of scientific communication

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Abstract The article discusses the role of the Ciência & Saúde Coletiva Journal in the dissemination of knowledge in Brazil and in the international scientific community, its new challenges and role in the consolidation of the national public health field. Its history is outlined, positioning it as a scientific journal and the themes approached in it are analyzed. Among the findings, it is emphasized that the journal features a structured space by the habitus of public health, and creates its own habitus that contributes to structure this field. In addition, the journal contributes to the development of critical mass in the area and is committed to the Brazilian Public Health System.

Keywords Science, Public health, Scientific journal

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Introduction

Ciência e Saúde Coletiva (C&SC) completes 20 years of existence in 2015. The success it has reached in the Brazilian scientific community, tending to increase internationally, is as challenging as the present challenges. On one hand, the journal is constantly ready to meet its commitment to communicate the latest news in public health research, aiming at the advancement of this scientific area that serves as support to intervene in policies, management and services of the Brazilian Public Health System (SUS). On the other hand, it is part of the national and international context which increasingly demands quality and international socialization from national journals.

The current situation of the journal is very different from that at the time of its creation, in 1996, when discussions were particularly about the reason why the Brazilian Association for Post-Graduate Study in Collective Health (Abrasco) should have a scientific journal and whether or not to publish in paper, in face of the arrival of the internet¹. Time has shown that this discussion has become useless, as it is known today that different types of media have a mutual growing potential. As for the discussion on the use of the printed text, the existing discussion addresses the environmental question much more than whether or not printed works will disappear, since the use of paper implicates in tearing down trees. Despite controversies, this consideration is likely to face many turnarounds from the technological revolution and public debate.

The present article addresses two current issues of this promising tension: the commitment with SUS and the growth of internationalization of knowledge disseminated by *Ciência & Saúde Coletiva* journal.

The first issue is in the scope of the journal, which opens it as scientific space for discussions, debates, presentation of studies, exposure of new ideas and controversies on policies, services and management of SUS. Its existence is supported by an increasingly present thought in the contemporary world, regarding scientific production and communication which, without losing its reflexive and critical character, must be focused on "citizen quality of life"². Or according to Ziman³, that science must be focused on a society in change and integrated in the development of countries. This author criticizes the obsolescence of the Mertonian norms for research, characterized by a social space relatively free from external

controls and based on peer evaluation of quality only. Or as reported by Guston and Keniston⁴, who emphasize the necessity of an agenda of studies and scientific publications favoring the interests of the society, in which the responsibility of scholars is clear regarding the studied subjects, and in which scholars are able to convince society and politicians of the merits of their proposals. This idea of commitment is also present in the Action Plan for Science Technology and Innovation for National Development⁵ of the Ministry of Science and Technology of Brazil, which encourages scientists to contribute to economic growth, job and income generation, democratization of opportunities and forms of sustainable development, so as to meet the just social needs of Brazilians and the constant strengthening of national sovereignty.

Science in harmony with society was expressively emphasized in the late 1930's by Bertold Brecht's⁶ "The Life of Galileo", in the "Discourse on the two new sciences". In this work, the author in the guise of Galileo, incited German scholars in areas of the humanities to promote the changing feeling of human beings, by giving up or collaborating with the Nazi regime:

Will we be scientists if we disconnect with people? [...] The struggle for the mensuration of the sky was gained through doubt; but the credulity of the Roman housewife will always make her lose the struggle for milk again. Science is connected to two struggles. [...] What do you work for? I support that the only purpose of science is to relieve the tiredness of human existence. And if scientists, intimidated by the superiority of the mighty ones, think that it is enough to pile knowledge up, for the sake of knowledge, science might become a handicap⁶.

Why talk about the role of contemporary science when writing about the aims of a scientific journal? Because it is the percussion and repercussion box of produced knowledge and, therefore, must excel the choice of articles it delivers and loyally defend its scope when accepting any type of collaboration, aiming at having merit as the essence of delivered texts.

Regarding the second issue addressed herein, data demonstrate how *Ciência & Saúde Coletiva* has followed the internationalization and adhesion movement for the advancement of theories, technologies and scientific publishing practices, as well as its short-term challenges. That includes from the simplest standardization processes to the intense discussion on parameters for measurement of impact factor of published texts. Without losing the focus on the contribution for

the construction of SUS, at this point the discussion unfolds into several questions, of which only a few aspects will be addressed.

Significance of what is produced by Ciência & Saúde Coletiva

Ciência & Saúde Coletiva was created in 1996, soon after the X National Conference on Health, which symbolically defined a further step in the history of Abrasco for its involvement with the implementation of the SUS according to mandatory principles of the Constitution of 1988 and the organic law of 1990.

In its first volume, containing commissioned articles, the journal convened the public health community to participate in the construction of the journal, aiming at offering the publishing market two annual publications. Without leaving behind the contribution of the hard nucleus of thought in the field that traditionally comprises epidemiology, planning and social sciences; since that time, the journal has included a variety of views from other disciplines, such as buccal health, history, demography, nursing, physical education, physiotherapy, speech therapy, social psychology and psychiatry, as long as the focus is on the analysis and evaluation of health problems and quality of life of the Brazilian population.

In 2002, with four annual publications and institutionalized characteristics of a journal at full development, *Ciência & Saúde Coletiva* was indexed in the Scientific Electronic Library Online (SciELO). And, by 2005, it was in other indexation sources, such as: Lilacs, Latindex, Red ALyC and CSA Sociological Abstract.

Also in 2005, celebrating 10 years of existence, Ciência & Saúde Coletiva managed to expand its circulation and recognition through new indexations and, also by creating its own site (www. cienciaesaudecoletiva.com.br), transforming the whole process of submission, evaluation and communication with authors, previously done manually and in paper, into an online subscription virtual environment. In that year, partnerships with editorial boards and mutual issuing from four international journals were also established: Environmental Health Perspective (National Institute of Environmental Health Sciences, USES); Salud Pública (National Institute of Salud Pública, Mexico); Ciencia y Trabajo (Fundación Nacional of Ciencia y Technology, Chile) and Salud Colectiva (Asociación Civil Salud Colectiva y Universidad Nacional of Lanús, Argentina).

In 2006, Ciência & Saúde Coletiva started to release six annual publications. It was indexed in the MedLine database, increasing its international recognition in 2007. In 2008, with thirteen years of existence, Ciência & Saúde Coletiva was accepted in the ISI/Thomson database.

Issuing twelve annual editions since 2011, Ciência & Saúde Coletiva reached 19 volumes in 2014, enclosing 30 articles in each edition and is indexed in 22 international and regional databases, including: SciELO, ISI/THomson, Med-Line, PubMed Scopus and Google Metrics. On December 27th of the same year, Ciência & Saúde Coletiva was the fifth most visited title in the Sci-ELO collection, with 986.769 accesses. Unfortunately, the Qualis system of the Coordination for the Improvement of Higher Education Personnel (Capes), from the Ministry of Education (Brazil), sub classified the journal as B1, not rising it to level A, despite its qualities. Nevertheless, Ciência & Saúde Coletiva is also recognized in the archives of other areas: ranked as B1 in Anthropology, Archaeology, Economy, Nursing and Sociology; A2 in Applied Social Sciences I, Teaching, Psychology and Social Service; and A1 in Law.

Considering the difficulty in reviewing the overall content of all published texts up to this date, given the volume of such material, when celebrating 20 years, the chief editors opted to analyze the importance of what is delivered in the *Ciência & Saúde Coletiva* journal, by selecting a sample of article titles. Two editions of each annual volume were selected, from 2002 to March of 2015. And the editions from 1996 to 2001 were analyzed *in toto*, as in the three initial editions, each volume comprised only one edition and in the following three years, only two editions were issued.

Ciência & Saúde Coletiva is a journal with a thematic focus which echoes the philosophical and political principles of Abrasco of subsidizing the discussion on the implementation of SUS and public health promotion in the country. The themes addressed in it come from different types of proposals: (1) from professors and scholars of the Abrasco committees; (2) from coordinators of unpublished and relevant research at a national level; (3) from public calls announced in the journal site for themes considered important or urgent and for which there is no demand; (4) from the internal organization created by the chief editors who gather, under a relevant title, articles approved during the continuous flow of the journal.

Along time, the number of articles in each publication varied between 13 and 30. The sam-

pling contains 927 titles submitted to thematic content analysis and descriptive quantitative analysis. It was considered that although the title of an article may not necessarily represent the complexity of its approach, it may synthetize the addressed subject and its central focus may be to appeal to readers. The title also constitutes the first reference for inclusion and exclusion search criteria in databases and virtual libraries for bibliographical search. Thus, symbolically, it is possible to affirm that the list of titles reflects the central scope of the articles.

In this analysis, each title was separated into nouns and qualifiers. Next, a first categorization was prepared, considering the existing thematic areas that guide authors at the moment of submission to the journal. In this first moment, it was noticed by thorough reading that besides the different addressed themes, numerous others could be visualized. All themes inferred by the nouns and their qualifiers in the titles of the sample were analyzed and from then, other themes were created to complement the previously defined ones.

The themes that served for classification of article titles do not necessarily exclude each other. Some overlap, depending on the adopted point of view. This non exclusion, in part occurs as the thematic categories reflect different arranging logics, and also, due to the empirical fact of the multidisciplinary views that a public health article contains. For instance, even when addressing an issue from a technical point of view, the authors usually contemplate the policies and practices related to prevention and assistance. Thus, central aspects of the study objects usually interconnect with fundamental health field questions which are eminently theoretical, political, technical and practical.

The distribution of titles by analytical categories was descriptive, according to frequencies. Themes that presented frequency 12 or lower, which meant a little over or a little less than 1% of the set of titles, were grouped in a generic classification denominated "Varied Themes". The following themes were included in this last grouping: Acupuncture; Science, Technology and Innovation; Socioeconomic Classes; Consumption; Human Growth versus HDI; Inequalities; Drugs; Gender and Health; Pet custody; Homeopathy; Immunization; Judicialization; Mourning; Doctor-Patient relationship; Mortality; Religion; Public Health; Native Health; Health in Prison; Supplementary Health; Sexuality; Subjectivity among others.

Such categories and those that integrate the thematic classification (Table 1) indicate that the Public Health field includes a wide thematic range and, in consequence, the journal contemplates discussions on multiple themes covered by the field.

Four themes stand out in Table 1. The first one "Health Policies, Planning and Management" holds the greatest number of article titles (14%), showing that the journal has an important role in the context of discussions on the implementation of SUS. In this theme, titles related to policies are more frequent than those addressing planning or management. *Ciência & Saúde Coletiva*, amid the leading national journals, is the one that most publishes articles on this theme. Among the 224 articles on politics, management and health, available at the SciELO database on March 19th of 2015, 21% were published by this journal.

Article titles related to SUS are one of the main topics in this category. The prevalence of this journal can also be confirmed in the set of articles at SciELO. Under all aspects, *Ciência & Saúde Coletiva* stood out regarding articles on SUS, with 23% of 197 titles available at this vir-

Table 1. Distribution of article titles per topic, according to studied sample.

Themes	N	%
Food and Nutrition	33	4
Pharmaceutical Assistance	39	4
Healthcare Evaluation	26	3
Biology, Genetics and Syndromes	16	2
Social and Human sciences in Health	19	2
Diseases and Illnesses	71	8
Economy and Financing in Health	20	2
Education in Health	36	4
Epistemology and Health Methods	29	3
Child and Youth Health	41	4
Women and Men Health	14	2
Elderly Health	17	2
Information, Communication and Health	18	2
Health Policies, Planning and Management	133	14
Health Promotion	16	2
Quality of Life	20	2
Buccal health	44	5
Family Health	36	4
Health and Environment	67	7
Health and Work	41	4
Mental Health	23	2
Violence, Accidents and Health	76	8
Varied Themes	92	10
Total	927	100

tual library on January 02nd of 2015. The journal that ranked second on this theme published 9% of this total. This is a fundamental theme for advancement in the implementation of policies, programs and action plans mediated by academic reflection, aiming at providing appropriate services to the Brazilian population.

"Diseases and Illnesses" includes 8% of the titles and is another theme that stands out. This category includes studies under the perspective of individuals or health issues: epidemiology of infectious diseases and non-communicable diseases, forms of treatment, transmitting agents, risk factors, analyses of incidence and prevalence and profile of populations affected by certain types of illnesses. Of the 203 articles available at SciELO on the subject, on March 19th of 2015, 20% were published by Ciência & Saúde Coletiva, which was then at second place in the set of leading public health journals, with three percentage points difference in relation to the Public Health Journal.

The third distinction theme is "Violence, Accidents and Impact on Health", integrating 8% of the analyzed titles. In this theme, the prevalence of studies on accidents is much lower than on violence, which holds over 80% of titles in the category. The articles suggest a wide range of aspects, such as theoretical conceptions and classifications, subjects as victims or aggressors, vulnerable groups, service institutions, policies and prevention programs, typology, evaluation of prevention activities, among others. Ciência & Saúde Coletiva, among the leading national public health journals, is the one that most publishes on this theme.

The fourth theme in quantity is Health and Environment, with 7% of articles. Ciência & Saúde Coletiva has been prodigal in publishing studies on the narrow relation between ecosystem interventions and the impact on illness production, which includes deforestation, flood, drought, water pollution, pesticide intoxication, heavy metal contamination issues, policies and prevention programs. The journal has followed public discussion with an effluent production of thematic editions used in symposiums, seminars and conferences. When the theme "Worker Health" is added to this category (with 4% of sample texts), generally covered by environmental issues, 11% of articles are found. Of 70 articles on "Public Health" and "Environment" available at SciELO on March 19th of 2015, 21% were published by Ciência & Saúde Coletiva, which was then first among the leading public health journals, with seven percentage points ahead of the second magazine (*Cadernos de Saúde Pública*). Regarding articles on Public Health and Worker Health, of the 12 articles available at SciELO on this theme on March 19th of 2015, 33% were published by *Ciência & Saúde Coletiva*. Revista de Saúde Pública and Revista Brasileira de Epidemiologia ranked second with 8% each from the total articles.

Several other categories such as Food and Nutrition, Buccal Health, Pharmaceutical Assistance and Family Health presented a significant number of articles in the studied sample; the last category could be added to those titles addressing SUS management and implementation. And the other three emphasize the disciplinal frontiers with which the public health area interacts. Without stretching this analysis, it is important to highlight that for certain themes such as Men Health (2% of articles); the journal was a pioneer in undertaking the first thematic publication, opening doors for other contributions.

Finally, the low frequencies of titles in the Varied Themes do not necessarily reveal its least importance in the public health field. In contrast, when themes are individually investigated, the category in question may point to the fact that many were firstly addressed by *Ciência & Saúde Coletiva*. On the other hand, the lower frequency of a determined theme does not necessarily mean that few articles are published by the journal. For instance, the term public health represents a little over 1% in 927 article titles. Nevertheless, the journal was the one that most issued articles on the subject: in the set of 199 articles on the theme available at SciELO database on January 2nd of 2015, 39% were published in it.

In an in-press article from a collection that celebrates 35 years of Abrasco (The 35 years) the same authors⁷ presented a study on the total number of editorials of the journal: 112 including the latest one in 2014. The content analysis of this massive work also reveals the wide thematic spectrum of the journal, comprising the diversity of the public health field that integrates both different disciplinal areas, and subordinates such areas to the discussion of fundamental questions. The analysis shows the primacy of studies on public policies, but also the diversity of themes that elapse the field: health and environment; worker health, violence and health, gender and health, health economy, health science and technology, genetics and public health, stem cell research ethics, abortion as a public health issue, social issue impact on health, SUS as a State policy, evaluation

in health, and analysis of all national household sample surveys on health access since 1988.

During its 19 years of existence, *Ciência* & *Saúde Coletiva* participated, with significant production, in important national and international public health milestones. Among those, editions specially prepared to subsidize the 11th World Conference of Public Health held in Rio de Janeiro in 2006, the National Health Conferences, II and III National Worker Health Conferences; the celebration of 100 years of Brazilian Public Health; the 10th Anniversary of the Global Conference on Environment; 20 years of SUS; Hundred Years of the Flexner Report and the Rio+20 Conference on environmental issue, among other important events stand out.

Therefore, irrespective of any biases that could occur in this text written by two chief editors, the gathered and analyzed information speaks for itself as for the importance and significance of the *Ciência & Saúde Coletiva* journal both for Brazilian public health and for the national science.

Challenges of Ciência & Saúde Coletiva in the changing context of the scientific communication field

In this part of the study, data available at SciELO⁸ database presenting 102.185 documents from 2009 to 2013 analyzed by Packer9 are shown. Such information allows evaluating the performance of the journal. The health area responds for 47.36% (47,364) of all articles published at SciELO database and the Public Health collection represents 19.03% (9,017) of this total. Within the collection, Ciência & Saúde Coletiva, a monthly journal since 2011, is the journal that most published in the period (2.009 documents), and is responsible for 22.29% of the total. Along with Cadernos de Saúde Publica, also a monthly journal, (1512 articles) and Revista de Saúde Pública, a bimonthly journal (838 articles), the three are responsible for 48.40% of all articles in the collection.

When accesses and downloads of articles published in public health journals are analyzed, *Ciência e Saúde Coletiva* is in third place, compared with *Revista de Saúde Pública* and *Cadernos de Saúde Pública*. These three journals are responsible, within the studied period, for 69.43% of the total accesses to the collection. However, when such rates are normalized, *Revista Interface* comes in first place with 1.52 accesses per arti-

cle/month. *Ciência e Saúde Coletiva* is ranked 5th with 1.04 accesses; *Revista de Saúde Pública* 7th with 0.97 accesses; *Cadernos de Saúde Publica* 8th with 0.96 accesses; and *Revista Brasileira de Epidemiologia* 9th with 0.78 accesses.

When the citations granted by the collection journals are analyzed in the period from 2008 to 2013, Ciência & Saúde Coletiva is by far ranked first, followed by Cadernos de Saúde Pública and Revista de Saúde Pública. When analyzing the rates of citations received by journals of the collection in 2013, referring to articles from 2008 to 2012, the first place is numerically occupied by Ciência e Saúde Coletiva (1109); followed by Cadernos de Saúde Pública (1071) and Revista de Saúde Pública (771). Again, when such rates are normalized, the top rankings are occupied by Revista de Saúde Pública (1.59), Cadernos de Saúde Pública (1.18), Revista Brasileira de Epidemiologia (1.03) and, by Ciência & Saúde Coletiva (1.02).

When Google Metrics, the ranking of journals, is used in the last five years, it shows *Cadernos de Saúde Pública* at first place with an H-index of 38; *Ciência & Saúde Coletiva* of 35 and *Revista de Saúde Pública* of 34.

One of the internationalization indicators is the number of articles published in foreign language. In this aspect, Ciência & Saúde Coletiva is at a disadvantage with Revista de Saúde Pública and Revista Brasileira de Epidemiologia as for texts published in English language; and with Cadernos de Saúde Pública and Saúde em Debate as for texts is Spanish language. It is noticed that most scholars who publish in the collection are Brazilians. However, an increase of articles particularly from Portugal, Spain and several Latin American countries is observed in Ciência & Saúde Coletiva as well as in other journals.

To increase the dissemination of articles in other languages, particularly in English, is one of the internationalization goals expected for the following years by SciElO. Ciência & Saúde Coletiva has already followed this guideline, by progressively introducing English-Portuguese publications online, besides publications printed in Portuguese. The decision of preserving Portuguese texts in printed and online formats is necessary due to the fact that the target-audience of greater interest of the Brazilian Association of Collective Health is formed by scholars, policy makers and professionals who act in the SUS healthcare and services. It is equally understood that the translation of articles into English is fundamental to increase the visibility of the national academic production.

Discussion

This discussion will focus on three main points: the role *Ciência & Saúde Coletiva* plays in the dissemination of knowledge in the country and abroad; the new challenges it faces and the role the journal plays in the consolidation of the field.

Ciência & Saúde Coletiva is among the three leading journals of the area, competing with them and at times ranking first, second, or third. It is possible to affirm, based on data, that if the journal stopped circulating today, it would cause a deep gap in the collection and it would be missed in the dissemination of scientific production of the area, as it has the greatest range of the field and of its frontier lines.

The transformations that have taken place in the journal correspond to the growing and rapid changes in the field of information and communication and, within this scenario, of the forms of presentation of scientific and technological products, making produced science more accessible worldwide. The most relevant transformations concern internet use. The digital format in the current online environment makes authors, reviewers, publishers and readers interact dynamically, as reported by Byrnes et al.¹⁰.

Ciência & Saúde Coletiva is in part, within the cutting-edge scientific communication. In part, it has a long way to go. On one hand, its whole publishing process is online and articles are issued by 22 international databases. In addition, all inpress texts in its webpage are published as soon as they are approved by the editors, with specific quotation rules, after peer review. On the other hand, the SciELO system started to adopt new criteria for admission and permanence of publications in its databases, aiming to increase the international impact of articles. Among the changes, which will have to be carried out gradually, are the growth in the number of articles written in English to no less than 75% of the whole collection, which is today 60%; and a greater presence of active foreign scholars in publishing boards and publishing works. Those are the weaknesses of Ciência & Saúde Coletiva, pointed by the data analyzed by Packer9.

As for proposals on new forms of peer review and scientific communication the future is even more distant. Byrnes et al¹⁰, supported by the SciELO⁷ system proposes a prospective debate on what is denominated the four pillars of scientific communication: establishment and coexistence of an ecosystem of products and formats; open-access immediate publication; open

peer review process and public recognition of reviewers.

This future is already present for journals like PLoS ONE, the largest current publisher of produced science; and arXiv articles repository of the physics, mathematics and computer area. Kriegeskorte¹¹ an enthusiast of open review suggests that the reviewers' comments be part of the article, being published either in webpages or blogs maintained by the journal. He agrees with the previously mentioned authors that this model values the specialized and thorough work of reviewers, which generally ends up discarded when the publishing process is finished. Journals like as *Plos ONE and the PeerJ* already offer to authors the option of publishing the reviewers' comments.

On all the new issues mentioned above, it is also necessary to be critical. First of all, it is known that there is no perfect scientific analysis and there is still no evidence that the boldest ways would be the most appropriate ones. It is clear that experimentation, as it already occurs, will be able to show the advantages and disadvantages for the world of scientific publishing to step forward with a little more safety. As reported by one of the most eminent epistemologists of the 20th century, Karl Popper¹², despite the whole imperfection, the best form of advancing science is still peer evaluation (which in fact preserves the traditional form and alternatives).

A second issue to be considered is that the world of journals has become a stage of competition and controversies, which can be emphasized by a race to publish and to be mentioned. This reality involves scholars, institutions, countries that produce science and journals. In this avalanche of changes is the boom of commercial publishers, who are increasingly profiting with scientific publishing worldwide, by charging to publish and providing access to articles that they publish.

A third issue to be emphasized is that it is not possible to separate scientific production from the success of journals that disseminate it. Journals depend on the outcomes of studies and on innovations to present quality. The outcome of an article as a scientific product always begins with the preparation of a study project or protocol. Therefore, the quality of what is published in a journal is the result of an investigation. And what it communicates may serve as parameter or base for hypothesis formulation on the state of scientific, technological development and innovation in a specific area. For a journal to be committed with reality changes, the results of

the investigations it publishes must also have this propose. If the journal needs to internationalize, this will only be possible if there is internationalization of investigations. If the journal needs to compete with the most recognized journals in the world (especially Qualis/CAPES which perhaps has unjustly become a national indicator), it will only be able to do so if national scholars have the same level as international scholars.

Another issue that needs to be highlighted concerns the financing of journals. While there is research funding for studies in Brazil, when it comes to publishing in journals, grants are absolutely inadequate and ridiculous. This fact contrasts with what occurs today in emergent countries like China, where growth of publications is exponential, and the Ministry of Science and Technology concentrates a strong and focused financing policy on the dissemination of knowledge with sights to internationalization, as reported and discussed by the representative of that country at the SciELO 15-year celebration seminar.

Conclusions

From a general to an individual view, an undiscussable consensus is noted today in the scientific community on the necessity of sharing science produced in laboratories by research teams, leading to a radical conclusion that uncommunicated and inappropriately disseminated science is science that does not exist: no one can guess what goes on in the laboratory of an investigator if his investigative activity does not become public through an internationally established format^{1,2}. Some authors, by altering the Cartesian theory that says *I think*, therefore *I exist*, state in the scientific world: *I exist because I am thought of and not because I think* ¹³.

It is understood, however, that scientific production and communication constitute an ecosystem that needs to be fed and treated as a whole and in each one of its components, both by those who formulate science and technology policies and by those responsible for their implementation. In this sense, journals are privileged forums of scientific production and communication, contributing for the evolving knowledge process to occur¹⁴. Unfortunately, today, national journal editors know that government publishing policies do not exist at the same level as what is expected from them. In contrast, they are usually treated as "owners in breach of contract" of journals, of financing problems, of journal professional training and of internationalization. Therefore, there is an urge to create public awareness on the importance and urgency of investing in the communication of scientific knowledge produced in the country.

Concerning Ciência & Saúde Coletiva journal, it is possible to consider that it is significant in the field it is inserted, where studies are mediated by theoretical, technical, professional, political and practical issues¹⁵. Hence, following the thought of Bourdieu^{16,17}, it must be seen as a structured space by the habitus of public health and, at the same time it creates its own habitus that contributes to structure the area. Thus, Ciência & Saúde Coletiva plays an important role in the order established by the field, but also, contributes to its change: it consecrates, serves as selective filter, and attests value to what is produced, secures intellectual property, legitimizes new themes and defines which material is publishable 16-18. This set of actions involves and compromises the whole constituting body of a journal: chief editors, editorial policy board, associate editors, editorial counselors, authors, ad hoc evaluators, executive team and indicators.

Briefly, as an Abrasco journal, Ciência & Saúde Coletiva has fundamental functions: on one side, it contributes with the rigidity of evaluations so that critical mass grows and therefore delimits, generously, its knowledge frontiers. On the other hand, in a recursive process, it brings national and international recognition to the Association, at the same time that it maintains the inflexible promise with SUS.

Collaborations

MCS Minayo and R Gomes participated equally in all stages of preparation of the article.

Acknowledgments

For its dedication to making *Ciência & Saúde Coletiva* a magazine so important for the country and the world, our sincere thanks to Lilian Vicentin, Danúzia Rocha, Raimunda Mangas, Telma Freitas, Luiza Gualhano, Adriana Ribeiro, Marcelo Z. Afonso e Derrick Phillips.

References

- Minayo MCS. A complexa dinâmica da divulgação científica: o caso da Revista Ciência & Saúde Coletiva. RECIIS 2007; 1(1):35-44.
- Vessuri H. Ciencia, comunicación y sociedad en América Latina. *Interciencia* 2003; 28(6):313-315.
- Ziman JM. What is happening in science? In: Cozzens SE, Healey P, Rip A, Ziman J, editors. *The research system in transition*. Dodrecht: Klowe Academic Press; 2003. p. 23-33.
- Guston DH, Keniston K. The fragile contract. Cambridge, London: MIT Press; 1994.
- Brasil. Ministério de Ciência e Tecnologia. Ciência, Tecnologia e Inovação para o Desenvolvimento Nacional. Plano de Ação 2007-2010. Brasília: Ministério de Ciência e Tecnologia; 2007.
- Brecht B. Vida de Galileu Galilei. Rio de Janeiro: Editora Paz e Terra: 1991.
- 7. Minayo MSC, Gomes R, Almeida MF, Goldbaum M, Carvalheiro JR. Abrasco faz ciência e avança em conhecimentos: contribuições de Ciência & Saúde Coletiva e Revista Brasileira de Epidemiologia. In: Trindade N, organizador. Comemoração dos 35 anos da Abrasco. Rio de Janeiro: Editora Fiocruz; no prelo 2015.
- Artigo propõe quatro pilares para a comunicação científica favorecer a velocidade e a qualidade da ciência. SciE-LO em Perspectiva [cited 2015 Jan. 28]. Available from: http://blog.scielo.org/blog/2013/07/31/artigo-propoe-quatro-pilares-para-a-comunicacao-cientifica-para-favorecer-a-velocidade-e-a-qualidade-da-ciencia/
- Packer AL. Indicadores de centralidade nacional da pesquisa comuicada pelos periódicos de Saúde Coletiva editados no Brasil. Cien Saude Colet 2015; 20(7):1983-1995
- Byrnes JEK, Baskerville E, Neylon C, Tenopir C, Schildhauer M, Budden A, Aarssen L, Lortie CJ. The four pillars of scholarly publishing: the future and a foundation. *PeerJ PrePrints* 2013; (1):e11v1.

- 11. Kriegeskorte N. Open evaluation: a vision for entirely transparent post-publication peer review and rating for science. *Front. Comput. Neurosci.* 2012; 6:79.
- 12. Popper KE. *A Lógica da Pesquisa Científica*. São Paulo: EDUSP; 1985.
- Lafuente A, Saraiva TF, Figueiredo T. Ciência, técnica e cultura de massas. In: Morão JL, Lafuente A, Matos AC, Saraiva T, organizadores. O mundo ibero-americano das grandes exposições. Lisboa: Editora Veja; 1998. p. 31-38.
- Santos SM, Noronha DP. Periódicos brasileiros de Ciências Sociais e Humanidades indexados na base SciELO: características formais. *Perspect. ciênc. inf.* 2013; 18(2):2-16.
- 15. Nunes ED. History and paradigms in Collective Health. *Cien Saude Colet* 2011; 16(4):2239-2243.
- Bourdieu P. O campo científico. In: Ortiz, R, organizador. Pierre Bourdieu. São Paulo: Ática; 1983. p.122-155.
- 17. Bourdieu P. Os usos sociais da ciência: por uma sociologia clínica do campo científico. São Paulo: UNESP; 2004.
- 18. Bourdieu P. O poder simbólico. Rio de Janeiro, São Paulo: Bertrand Brasil, DIFEL; 1989.

Article submitted 31/03/2015 Approved 31/03/2015 Final version submitted 02/04/2015