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Editorial

Research funding in "lean times"*

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ABSTRACT

The sponsorship of research and its consequent stimulus in the development of studies that produce results to be seen, used and discussed by society, , has, unfortunately, not grown at the same rate of advances in health. In general, developing countries have great potential for training researchers as sources of biological resources and projects. However, they lack financial resources, infrastructure and specific materials for the development of research. In Brazil, the federal universities and research institutes are the main generators of scientific knowledge being that research, science, technology and innovation start in education. Despite this logical determination, the Ministry of Planning has announced major cuts to the year 2015, with predictable losses in research, teaching and, consequently, to the health of the population.

Descriptors: Research Financing; Nursing Research; Nursing

*Due to the Federal Government's announcement that has confirmed a budget cut in several areas, including education and health, OBJN considers it to be a good idea to discuss this issue in the editorial, owing to its impact in Research and Development (R&D), so interrupting the editorial cycle of the series "Spot the seven errors in the papers submission process" which will resume in the next issue.

The progress in health and well-being achieved in the last century, especially in the last decades, is undeniable. This advance in the indicators is corollary to the increasing development of research in the areas in question. However, the sponsorship of research and its consequent incentive to conduct studies that produce results to be seen, enjoyed and discussed by society has, unfortunately, not grown in the same proportion.

The race for technology and innovation provides solutions in health care, from the creation of a new vaccine to a form of intervention that increases the efficiency (minimum cost and losses), efficacy (positive results) and effectiveness (meeting patients' expectations) of health care practices. Currently, the wealthiest countries are the ones that stand out in presenting new discoveries. Most of the time, these achievements help people of developed and developing nations, such as research advances in the area of infectious diseases from Africa and Asia[1]. In a recent editorial published in the Science journal, Anthony Fauci and Francis Collins, directors of the *National Institutes of Health* (NIH) of the United States, announced that, henceforth, the health research funding by NIH will basically prioritize the diseases that affect American citizens[2].

In general, developing countries have great potential for training researchers as sources of biological resources and projects. However, they lack financial resources, infrastructure and specific materials for the development of research.

The figures on investment in research on behalf of the nations of the Organization for Economic Cooperation and Development (OECD) in Latin America and the BRICS show that Brazil is ahead of Mexico, Argentina, Chile, South Africa and Russia, but still very far from China and South Korea, for example, which are countries that have recently initiated a leap in industrial development. In 2011, China became the second largest investor in research and development[3].

In the last few years, Brazil has kept the proportion of investment in research at around 1% in relation to gross domestic product (GDP), despite the promise by the federal government to increase spending to 2% in 2003 - a level close to the average in OECD countries, which is 2.3%. Four years later, the 2007-2010 Action Plan for Science, Technology and Innovation set a target of 1.5%. However, total investment remained at 1.22% of GDP in 2010[4].

In Brazil, federal universities and research institutes are the main source of the production of scientific knowledge, being that research, science, technology and innovation start in education. Despite this logical determination, the Ministry of Planning has announced major cuts for the year 2015, with predictable losses for research, teaching and, consequently, for the health of the population.

As a late reflection of the global crisis generated seven years ago in the United States, coupled with the non-adoption of adjustments in Brazilian domestic politics, the Ministry of Planning has heralded the lock of R$69.9 billion in its "lean" forecast for the year 2015. This contingency will mainly affect the Ministry of Cities (a reduction from R$31.74 billion to R$14.51 =

54%), the Ministry of Health (R$103.27 billion to R$91.5 = 11.3%) and Ministry of Education (R$48.81 billion to R$39.38 = 19.3%). We can observe that even the essential services of health and education have topped the list in 2nd and 3rd place, respectively[5]. Due to this fiscal adjustment, cuts imposed on the Higher Education Personnel Training Department (Capes) have reached a total of R$785 million. Thus, we can safely assume that this will affect a range of programs, including the scholarships that come into effect from July this year[6].

This situation may affect the population in the medium and long term, being that the development of a nation is also measured by life quality and expectancy and education, as well as access to and the effectiveness of the health sector. This conjecture almost immobilizes supporters of the national survey, whether due to material and equipment costs, or to the impossibility of carrying out part of their training abroad.

Just as in the time of the stories of Urupês by Monteiro Lobato, we are in turn experiencing the situation of Jeca Tatu, standing next to a lean cow looking for pasture. This is an allusion to the researcher who wants to keep alive his research, but lacks at least the basic facilities to make the cow produce milk in order to maintain his living beneficiaries.

But has the country, facing so many obstacles, including the current and persistent financial crisis, ever been in the days of "fat cows" in the area of research and innovation? It is worth remembering, for instance, that Brazil leads the production of scientific papers in relation to Canada, Spain and the main Latin American countries: a total of 94,622 articles in international scientific journals as indexed by Web of Science from 2008 to 2010, an amount that exceeds by 25% the sum of publications from Mexico, Argentina, Chile, Colombia and Venezuela combined. In relation to nursing, the country stands in first place with 1,284 publications, leaving Canada in second with 984, and Spain in third with 100 works relevant to the area[7]. Moreover, according to the journal "Nature", Brazil appears in 23rd position in the top 100 production ranking for 2015[8].

With regard to research investment from Brazil's private sector, 0.55% of GDP is invested, which is far from the 2.68% invested by the private sector in South Korea or the 1.22% of China[9]. In the case of the nursing segment, the situation shows dramatic contours as companies seek to invest in financial fields with short term returns, such as the automotive, electrical, engineering, and pharmaceutical or food industry. But what about the health care industry? This is often overlooked in economic analysis despite its efficiency, efficacy and effectiveness. However, researchers in this area survive and persevere in spite of "lean, starving and standing cows", and have shown significant progress.

With the internationalization of journals and indexing in reputed databases, along with the allocation of resources, Brazilian research into nursing has developed in terms of care practices, health and quality of life; this research is reaching a greater foreign audience, as well as improving their quality due to the requirements of journals at that level. However, the meager resources that are still shed on the sacrificed soil of the scientific production in nursing in Brazil, specifically with regard to support for journals, reveal a cruel and exclusive logic.

As an illustration, we have observed the latest Call from MCTI/CNPq/MEC/CAPES number 25/2014[10], which aimed to "select proposals for financial support to projects aimed at encouraging the editing and publication of Brazilian scientific journals highly specialized in all areas of knowledge in order to contribute significantly to the scientific and technological development

of the country." The response[11] to the call in the nursing field included only the four journals already high-qualified by WebQualis[12], from the very Capes. The question that emerges from this example is: were magazines included because they are the best, or did they become the best because they are always covered? Naturally, a second question emerges: what is the outlook for the journals that were not included, or were not the best in the field?

References

1. Administradores [homepage]. Entenda a diferença entre Eficiência e Eficácia de uma vez por todas [cited 2015 Jun 22]. Available from: http://www.administradores.com.br/artigos/cotidiano/entenda-a-diferenca-entre-eficiencia-e-eficacia-de-uma-vez-por-todas/81934/
2. Fauci AS, Collins FS. NIH research: Think globally. Science Magazine [internet] 2015 Apr [cited 2015 Jun 22]; 348(6231):159. Available from: http://www.sciencemag.org/content/348/6231/159.fu
3. Senado Federal (Brasil). Investimento em pesquisa e desenvolvimento, ciência, tecnologia e inovação no Brasil. Em discussão [internet] 2012 Sept [cited 2015 Jun 22]; 3 (12). Available from: http://www.senado.gov.br/NOTICIAS/JORNAL/EMDISCUSSAO/inovacao/ciencia-tecnologia-e-inovacao-no-brasil.aspx
4. Ministério do Planejamento (Brasil) [homepage]. Governo apresenta programação orçamentária para 2015 [cited 2015 Jun 22]. Available from: http://antigo.planejamento.gov.br/conteudo.asp?p=noticia&ler=12402
5. Sindicato Nacional dos Docentes das Instituições de Ensino Superior (Brasil) [homepage]. **Capes sofrerá cortes que podem alcançar R$ 785 milhões. [cited 2015 Jun 22]. Available from:** http://www.andes.org.br/andes/print-ultimas-noticias.andes?id=7573
6. Fundação de Amparo à Pesquisa do Estado de São Paulo. Pesquisadores no Brasil publicam 56% dos artigos científicos originados na América Latina. Boletim FAPESP [internet] 2011 Nov [cited 2015 Jun 22]; 3. Available from: http://www.fapesp.br/indicadores/boletim3.pdf
7. Table 2: Top 200 institutions. Nature [internet] 2015 Jun 18 [cited 2015 Jun 22]; 522: s34-s44. Available from: http://www.nature.com/nature/journal/v522/n7556_supp/fig_tab/522S34a_T1.html
8. Senado Federal (Brasil). Investimento em pesquisa e desenvolvimento no Brasil e em outros países: o setor privado. Em Discussão [internet] 2012 Sept [cited 2015 Jun 22]; 3(12). Available from: http://www.senado.gov.br/noticias/Jornal/emdiscussao/inovacao/ciencia-tecnologia-e-inovacao-no-brasil/investimento-em-pesquisa-e-desenvolvimento-no-brasil-e-em-outros-paises-o-setor-privado.aspx
9. Conselho Nacional de Desenvolvimento Científico e Tecnológico (Brasil) [homepage]. Chamada MCTI/CNPq/MEC/CAPES Nº 25/2014 – Editoração. [cited 2015 Jun 22]. Available from: http://cnpq.br/web/guest/chamadas-publicas;jsessionid=BCD848DD66D3CD7EB313743560B3E4FE?p_p_id=resultadosportlet_WAR_resultadoscnpq-portlet_INSTANCE_0ZaM&filtro=abertas&detalha=chamadaDivulgada&idDivulgacao=5462
10. Conselho Nacional de Desenvolvimento Científico e Tecnológico (Brasil) [homepage]. Resultado Final - Chamada MCTI/CNPq/MEC/CAPES Nº 25/2014 – Editoração. [cited 2015 Jun 22]. Available from: http://resultado.cnpq.br/6765154538463799
11. Conselho Nacional de Desenvolvimento Científico e Tecnológico (Brasil) [homepage]. Consulta WebQualis [cited 2015 Jun 22]. Available from: http://qualis.capes.gov.br/webqualis/principal.seam

Picture reference

Quando voltarei a engordar? [ilustração]. [s.l.]; [s.d.]. Available from: https://aevangelista.wordpress.com/2010/10/14/voltando-as-vacas-gordas/

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