







EXPERIENCE REPORT

Network research management in Federal University Hospitals*

HIGHLIGHTS

1. The largest network of medium and high-complexity care in the SUS.
2. Possible to know the aspects that impact research management.
3. Need for development a research management strategy.

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ABSTRACT

Objective: To understand the aspects that impact on research management at the Brazilian Hospital Services Company (Ebserh). **Methods:** Experience report, carried out in the second half of 2022, online, with the application of Focus Group with research managers of Ebserh-Sede to analyze the Strengths, Opportunities, Weaknesses and Threats. As a research question: "What aspects impact research management in the Ebserh Network, from the manager's perspective? **Results:** The results stood out: Strengths: number of hospitals and national coverage; Opportunities: generating a research fund; Weaknesses: no researchers on the network's staff; Threats: delays in management processes. **Final considerations:** Managers have a comprehensive view of network aspects to improve and maintain the institution's services and the need to develop an effective strategy for managing research. There is a need to develop a management strategy for research within Ebserh.

KEYWORDS: Science and Technology Information Networks; Management of Science, Technology and Innovation in Health; University Hospitals; Health Management; Organizations and Administration.

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INTRODUCTION

Research and innovation management in public organizations is a complex and challenging process that requires the creation of the necessary physical, financial, and human resources and the prospect of inter-organizational collaboration¹. The need to study and get to know the various national health research systems² points to the premise of establishing network management, which requires the technological development of communications with tools that enable real-time interactions²⁻³.

In Brazil, 51 HUFs are linked to 36 Federal Universities (UF), established as practice fields for teaching, university extension activities and research⁴⁻⁵. The creation of the Brazilian Hospital Services Company (Ebserh), through Law No. 12,550 of December 15, 2011, was responsible for managing the Federal University Hospitals (HUFs) and fostering the networking of these HUFs. Quality services in teaching, research, extension and assistance, as well as the incorporation of technologies, show the importance of institutions for the country's education and health systems⁶.

Thus, this report is justified, since no studies were found in Brazil focusing on research management in HUFs, especially on a model for managing research in networks in HUFs. This reveals a gap in knowledge that led to the following question: What aspects impact research management at Rede Ebserh, from the manager's perspective? The aim is to understand the aspects that affect research management at Ebserh.

METHOD

Experience report with the application of Focus Group (FG) with research managers of Ebserh-Sede to analyze the Strengths (S), Opportunities (O), Weaknesses (W), and Threats (T), sequence of the SOWT matrix, of network research management in HUFs. Held in the second half of 2022, online. All the research managers at Ebserh-Sede and an external observer⁷ were invited.

Participants were invited by e-mail, which included the study's aim and how the meeting would take place. Upon acceptance, the Informed Consent Form was sent, and the online FG was scheduled through the Teams platform. It was recorded and transcribed, and sociodemographic and professional data were collected.

The material constructed in the FG was sent by e-mail to the participants for validation. To achieve the proposed objective, a script was drawn up with guiding questions for the FG: "What do you see as the opportunities, potential, weaknesses and threats in research management at Rede Ebserh?"; "What activities do you think your company is capable of carrying out?"; "Are the professionals engaged and trained in research activities?"; "What is your biggest advantage over other competing companies?". What can be improved? " and "How do you see network research management at Ebserh?". To collect and analyze the data, we followed a strategic approach to understanding the GF, using the SOWT tool to analyze the organization's internal environment and external scenario.

The Research Ethics Committee approved the research under substantiated opinion no. 5.840.344.

RESULTS

Four research managers who work in the Research Coordination Office at Ebserh-Sede and one observer were the participants, totaling 100% of the sector's professionals; three (75%) were female, with ages ranging from 39 to 56. The backgrounds were heterogeneous: one was from the media, one from physical education and administration, one from medicine, and one from psychology. Their professional experience ranged from 32 to 5 years, and they have worked at Ebserh-Sede for between 10 months and 5 years.

The results of the FG are presented in the sequence of the SWOT matrix. The Strengths listed are described in Chart 1, with emphasis on the number of hospitals in the national territory, being a public company, as well as being the largest network responsible for medium and high complexity hospital care in the Unified Health System (SUS) and as Weaknesses, little funding and bureaucracy for research because it is a public company.

Chart 1. STRENGTHS and WEAKNESSES identified. Curitiba, PR, Brazil, 2024
(continue)

FORCES	WEAKNESSES
<ul style="list-style-type: none"> • Number of hospitals and scope in Brazil; • The main group of medium and high complexity hospitals; • Capillarity; • Number of specialties; • Represents 33 UFs with 41 networked HUFs; • Central administration that coordinates between hospitals; • Growth potential; • Network presentation, with breadth and diversity of specialties; • Types of service provided at HUFs; • Professionals working in a network, being cutting-edge and qualified; • Researcher has a national research network; • Communication channel with development agencies, with headquarters strategically close to the agencies in Brasilia; 	<ul style="list-style-type: none"> • Not having a researcher on the Ebserh staff; • Vision of HUs as a practice scenario; • Little funding for research; • Researcher employed by the university and with no direct relationship to Ebserh; • Bureaucracy for research because it is a public company; • Ebserh is not responsible for intellectual management; • Little use is made of the network as a channel for action; • Does little research into his practice; • Audits that cause processes to stall; • Time-consuming processes; • Share space with the health care directorate (DEPAS); • Possibility of political influence as it is a public company;

Chart 1. STRENGTHS and WEAKNESSES identified. Curitiba, PR, Brazil, 2024
(conclusion)

FORCES	WEAKNESSES
<ul style="list-style-type: none"> • Ebserh has the strength to be exploited; • Channeling good ideas could lead to networked research actions; • Space and structure for quality research; • Has an electronic management system - Management Application for University Hospitals (MAUH) - which searches for data that talk to each other; • Professionals who want to work and do; • Professional commitment to the same interests; • The Institute of Science and Technology (ICT) opens up the possibility of applying for calls for tenders; • ICT and state duality at the same time; • Access to new technologies through research; • A source of innovation within the SUS; • Have HUFs mark in studies; • Team legal specialist/specializing in research; • Engaged team; • Teaching and research in the same direction; • Possibility of exchanges in common areas; • Communication channels for networking. 	<ul style="list-style-type: none"> • A state-owned health company linked to the Ministry of Education (MEC), and research activities linked to the Ministry of Science and Technology (MCT); • A gray area, due to the lack of clarity as to where the activities at the university and Ebserh go; • Diversity of contracts under the Unified Legal System (RJU) and the Consolidation of Labor Laws (CLT) with different rules; • Few regulations for the entire network, while some HUFs have their own rules; • There is almost no regulation of research activities in the management contract; • Difficulty with innovation contracts; • Ebserh - a young company that is little known outside the health sector; • Difficulty in recruiting research participants, due to Brazil/public company bureaucracy; • Little publicity about Ebserh and what it does; • Little dissemination of the research carried out at Ebserh; • Difficulty in training in networking and research; • Reduced staff; • Missing politics internationalization of the Ebserh Network to date; • The network has an affective relationship; • Lack of internal coordination for network training.

Source: The authors (2024).

Chart 2 describes the Opportunities raised by the participants, such as retaining people (professionals who have been recruited) and networking, and the Threats, such as delays in processes and the possibility of political influence because it is a young company.

Chart 2. OPPORTUNITIES and THREATS identified. Curitiba, PR, Brazil, 2024

OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> • Generate research funds; • Bringing innovative treatments to the population; • Maintaining the quality management system; • Keeping people on the payroll; • Providing funds to promote academic research; • Carry out research into public management; • Networking; • Training research interest groups and helping teams to remain in the working group; • Being young, the opportunity to design norms in a group/network; • Provide opportunities for networking and training; • Do a multi-professional residency in clinical research. 	<ul style="list-style-type: none"> • Time-consuming processes; • Possibility of political influence as it is a public company; • Considers the teaching career individual - individual authorial projects to the detriment of the collective; • Competition in private industry (clinical trials); • The speed of private institutions' processes; • Ebserh's lack of visibility (being young).

Source: The authors (2024).

DISCUSSION

In relation to the Strengths listed by the group, being a source of innovation in the SUS aligned with communication channels for networking can be highlighted. The SUS has a series of institutions that coordinate with the municipal, state and federal health authorities. This network contributes to the sustainability of the health system, combining care with teaching and research in order to provide knowledge and skills, which favors the provision of a quality service and the dissemination of evidence-based knowledge⁸. It also has potential for future growth, based on better structuring existing units and others that comprise the network.

In addition to having a single electronic management system, MAUH, which allows data searches to dialog with each other, and professionals working in a network, they are considered cutting-edge and qualified. They contribute to the success of care, teaching, and research, which depend on the technologies available in the institution, the expertise of the manager, and the type of professionals who make up the staff⁹ available in these HUFs.

As for the Weaknesses, the company does not have a tradition of managing research. The result shows professionals who are not in the habit of researching their own practice. Little funding for research is a chronic problem in Brazilian institutions, aggravated by the delay in processes and bureaucracy for research because it is a public company. The researcher's competence shares space with health care, which is prioritized to the detriment of the scientific pillar.

In order to attract funding, national science and technology policies need to be reformed to overcome the difficulties of a developing country and make it possible to build a research park in line with its reality¹⁰⁻¹¹.

It also has a reduced team in the research and support area, with a lack of internal coordination for network training, which hinders training in the research segment. The network is little used for channeling actions, it is based on an affective relationship, which rules out equity in its operation. These issues are chronic in Brazil, especially in younger institutions, aggravated by the affectivity that permeates the network¹².

Few opportunities were listed, especially when considering the possibility of networking. The FG did not mention research as a priority for the SUS; guidelines and/or research policies for and within the network. The participation of the public, philanthropic and private sectors - national, international and multinational - and various partnerships linked to the planning, funding, execution, and evaluation of health research, taking into account the macroeconomic aspects of the different forms of funding for research, science and technology, can be replicated in the network management model¹³⁻¹⁶.

Research and development can promote a virtuous circle in universal health systems, such as the SUS, by bringing science into decision-making and making innovative proposals when the opinions of its users are taken into account¹⁷.

Threats are a historical problem experienced by many institutions that make up the SUS. Where possible, the challenge of improving management with professional administration and public-private partnerships is proving to be a promising alternative to circumvent the delay in processes and competition with the private industry, especially in clinical trials and the speeding up of processes by private institutions¹⁸. The private and philanthropic sectors are increasingly involved in financing and carrying out health research through partnerships between public-private institutions¹⁵. In addition, data was collected in a public environment, where the network is an organizational space intending to develop a product or carry out an action¹⁹.

In this perspective of network management, many variables define the effectiveness of collaborations, and there is a need to reconcile top-down hierarchical governance, a vertical and authoritarian management model, with a network structured on a horizontal model, based on a web of partnerships with common objectives²⁰. Thus, there is a need for differentiated approaches to managing research networks, as they involve several authors with different incentives and institutions with different cultures²¹.

FINAL CONSIDERATIONS

The reflection of research managers and professionals involved in this area was evident, highlighting the number of hospitals and the national scope as strengths. The main opportunities are to generate research funds and retain professionals.

The weakness is the lack of researchers on the network's staff assigned to this function. Nevertheless, the delay in management processes was considered a threat, with few regulations for the network. At the same time, some HUFs drew up their own rules to fill gaps in the management contract regarding research activities.

This study's contributions include developing research management strategies within Ebserh to maintain the quality of the services offered by the HUFs and coordinating actions to strengthen them.

REFERENCES

1. Bin A. Planejamento e gestão da pesquisa e da inovação: conceitos e instrumentos [thesis on the Internet]. Campinas: Universidade Estadual de Campinas; 2008 [cited 2024 Jun 20]. p. 239.]. Available from: <https://doi.org/10.47749/T/UNICAMP.2008.430818>
2. World Health Organization (WHO). National health research systems: report of an international workshop, Cha-am, Thailand, 12-15 March 2001 [Internet]. Geneva: WHO; 2002 [cited 2024 Jun 20]. 34 p. Available from: <https://iris.who.int/handle/10665/42455>
3. Provan KG, Kenis P. Modes of network governance: structure, management, and effectiveness. *J. Public Adm. Res. Theory* [Internet]. 2008 [cited 2024 Jun 20];18(2):229-52. Available from: <https://doi.org/10.1093/jopart/mum015>
4. von Niederhäusern B, Magnin A, Pauli-Magnus C. The impact of clinical trial units on the value of clinical research in Switzerland. *Swiss Med Wkly* [Internet]. 2008 [cited 2024 Jun 20];148(1718):w14615. Available from: <https://doi.org/10.4414/smw.2018.14615>
5. Ministério da Educação (BR) [Internet]. Brasília: Ministério da Educação; 2018 [cited 2024 June 20]. Relação dos Hospitais Universitários; [about 4 screens]. Available from: <http://portal.mec.gov.br/hospitais-universitarios/250-programas-e-aco-es-1921564125/hospitais-universitarios-1557876115/13808-relacao-dos-hospitais-universitarios>
6. Brasil. Lei nº 12.550, de 15 de dezembro de 2011. Autoriza o Poder Executivo a criar a empresa pública denominada Empresa Brasileira de Serviços Hospitalares - Ebserh [...]. Brasília, DF: Presidência da República; 2011 [cited 2024 Jun 20]. Available from: http://www.planalto.gov.br/ccivil_03/_ato2011-2014/2011/lei/l12550.htm
7. Anjasni B. SWOT assesment of the community potency to determine the strategic planning for volcano eruption disaster management (case study in Cangkringan, Yogyakarta Province). *Procedia Environ Sci* [Internet]. 2013 [cited 2024 Jun 20];17(2013):337-43. Available from: <https://doi.org/10.1016/j.proenv.2013.02.046>
8. Paim JS. Thirty years of the Unified Health System (SUS). *Cien Saúde Colet* [Internet]. 2018 [cited 2024 Jun 20];23(6):1723-8. Available from: <https://doi.org/10.1590/1413-81232018236.09172018>
9. Seixas MS, De Melo HT. Desafios do administrador hospitalar. *Gest Planej* [Internet]. 2004 [cited 2024 Jun 20];5(9):16-20. Available from: <https://revistas.unifacs.br/index.php/rgb/article/view/185/188>

10. Santos AO, de Barros FP, Delduque MC. Health research in Brazil: challenges to be faced. *Saúde debate* [Internet]. 2019 [cited 2024 Jun 20];43(spe5):126-36. Available from: <https://doi.org/10.1590/0103-11042019S511>
11. Guimarães R. Health research in Brazil: context and challenges. *Rev Saúde Pública* [Internet]. 2006 [cited 2024 Jun 20];40(esp):3-10. Available from: <https://doi.org/10.1590/S0034-89102006000400002>
12. Goldbaum M, Antunes JL, Camargo KR Jr. The relevance of public health journals in informing research, education, health services, and citizenship. *Ciêns Saúde Colet* [Internet]. 2021 [cited 2024 Jun 20];26(4):1401-5. Available from: <https://doi.org/10.1590/1413-81232021264.33992018>
13. Kealey T. *The economic laws of scientific research*. Nova York: St. Martin's Press Inc; 1996. 396p
14. Organização de Cooperação e Desenvolvimento Econômico (OCDE). *Manual de Frascati - metodologia proposta para levantamentos sobre pesquisa e desenvolvimento experimental* [Internet]. [place unknown]: F. Iniciativas; 2007 [cited 2024 Jun 20]. Available from: https://www.ipdeletron.org.br/wwwroot/pdf-publicacoes/14/Manual_de_Frascati.pdf
15. Reich MR. Public-private partnerships for public health. *Nat Med* [Internet]. 2002 [cited 2024 Jun 20];6(6):617-20. Available from: <https://doi.org/10.1038/76176>
16. Morel CM. Health research and the millennium development goals: global challenges and opportunities, national solutions and policies. *Ciêns Saúde Colet* [Internet]. 2004 [cited 2024 Jun 20];9(2):261-70. Available from: <https://doi.org/10.1590/S1413-81232004000200002>
17. Medin E, Anthun KS, Häkkinen U, Kittelsen SA, Linna M, Magnussen J, et al. Cost efficiency of university hospitals in the Nordic countries: a cross-country analysis. *Eur J Health Econ* [Internet]. 2010 [cited 2024 Jun 20];12:509-19. Available from: <https://doi.org/10.1007/s10198-010-0263-1>
18. Cobaito FC, Cobaito VQ. SUS – Sistema Único de Saúde: a gênese, contemporaneidade, e os desafios do amanhã. *Inova Saúde* [Internet]. 2021 [cited 2024 Jun 20];12(1):160-77. Available from: <https://doi.org/10.18616/inova.v12i1.6026>
19. Fleury S, Teixeira SMF. *Gestão de redes: a estratégia de regionalização da política de saúde*. Rio de Janeiro: FGV; 2011. 204p
20. Goldsmith S, Eggers WD. *Governar em rede: o novo formato do setor público*. São Paulo: UNESP; 2006. 260p
21. Tenorio M, Mello GA, Viana AL. Management and perception of research network: a view from National Clinical Research Network in teaching hospitals. *Rev Electron Comun Inf Inov Saúde* [Internet]. 2016 [cited 2024 Jun 20];10(3). Available from: <https://doi.org/10.29397/reciis.v10i3.1158>

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Substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work - **de Matia G, das Mercês NNA, Peres AM, Ribeiro ER, Sartor SF, Felix JVC**; Drafting the work or revising it critically for important intellectual content - **de Matia G, das Mercês NNA, Peres AM, Ribeiro ER, Sartor SF, Felix JVC**; Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved - **de Matia G, das Mercês NNA, Peres AM, Ribeiro ER, Sartor SF, Felix JVC**. All authors approved the final version of the text.

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