



BIBLIOMETRIC ANALYSIS ABOUT THE EVALUATION OF HEALTH SERVICES

ANÁLISE BIBLIOMÉTRICA SOBRE AVALIAÇÃO DE SERVIÇOS DE SAÚDE

ANÁLISIS BIBLIOMÉTRICO SOBRE LA EVALUACIÓN DE LOS SERVICIOS DE SALUD

Débora Poletto Klein¹, Denise Maria Guerreiro Vieira da Silva², Bruna Pedrosa Canever³, Diana Coelho Gomes⁴

ABSTRACT

Objective: describing the profile on bibliometric evaluation of health services. **Method:** bibliometric study, quantitative approach. The guiding question was: What has been produced in scientific productions online databases in Latin America about the subject evaluation of health services in the period 2000-2013? Data collection was performed on the database LILACS, SciELO virtual library and database CEPEn with the descriptor: evaluation of health services; health services evaluation from 2000 to 2013. The analysis of 158 abstracts occurred by simple statistics. **Results:** assessments of health services have been disseminated in journals with high impact scientific community; most work directly evaluates health services and their quality and the care delivered by these services. **Conclusion:** It is necessary to develop evaluative studies addressing the evolution of the system and ensuring the quality of these services to the population. **Descriptors:** Evaluation of Health Services; Bibliometrics; Nursing.

RESUMO

Objetivo: descrever o perfil bibliométrico sobre avaliação de serviços de saúde. **Método:** estudo bibliométrico, abordagem quantitativa. Teve como questão norteadora: qual a produção científica presentes nas bases de dados online da América Latina sobre o tema avaliação de serviços de saúde no período de 2000 a 2013? A coleta de dados foi realizada na base de dados LILACS, na biblioteca virtual SciELO, e no banco de dados do CEPEn com o descritor: avaliação de serviços de saúde; *health services evaluation* no período de 2000 a 2013. A análise dos 158 resumos ocorreu por estatística simples. **Resultados:** as avaliações dos serviços de saúde tem se disseminado em revistas com alto impacto para comunidade científica; a maioria dos trabalhos avalia diretamente os serviços de saúde e sua qualidade e a assistência em saúde prestada por estes serviços. **Conclusão:** é necessário o desenvolvimento de trabalhos avaliativos visando à evolução do sistema e garantindo a qualidade desses serviços a população. **Descritores:** Avaliação de Serviços de Saúde; Bibliometria; Enfermagem.

RESUMEN

Objetivo: describir el perfil de evaluación bibliométrico de los servicios de salud. **Método:** estudio bibliométrico con enfoque cuantitativo. La pregunta guía fue: ¿Cuál es la base de producción científica presentes en los datos en línea de América Latina sobre el tema de la evaluación de los servicios de salud en el período 2000-2013? La recolección de datos se realizó en las bases de datos LILACS, SciELO biblioteca virtual y base de datos CEPEn con el descriptor: evaluación de los servicios de salud; evaluación de servicios de salud 2000-2013. El análisis de 158 resúmenes produjo por estadísticas simples. **Resultados:** las evaluaciones de los servicios de salud se han difundido en revistas de alto impacto en la comunidad científica; más trabajo evalúa directamente los servicios de salud y de su calidad y la atención prestada por estos servicios. **Conclusión:** es necesario desarrollar estudios de evaluación que abordan la evolución del sistema y la garantía de la calidad de estos servicios a la población. **Descriptores:** Evaluación de los Servicios de Salud; Bibliometría; Enfermería.

¹Nurse, Master Teacher of Nursing, Bachelor of Nursing Course, Colleges Fatima Education and College of Serra Gaucha/FSG. Caxias do Sul (RS), Brazil. Email: deborapoletto@gmail.com; ²Nurse, Nursing Professor, Department/Postgraduate Program in Nursing, Federal University of Santa Catarina/UFSC. Florianópolis (SC), Brazil. Email: deniseguerreiro@gmail.com; ³Nurse, Mastership in Nursing, Doctoral student of Nursing, Postgraduate Program in Nursing, Federal University of Santa Catarina/PPGENF/UFSC, Scholarship Pro-Education in Health/CAPEs. Florianópolis (SC), Brazil. Email: brunacanever@gmail.com; ⁴Nurse, Master's student of Nursing, Postgraduate Program in Nursing, Federal University of Santa Catarina/PPGENF/UFSC, Scholarship CNPq. Florianópolis (SC), Brazil. Email: dianacoelhog@yahoo.com.br

INTRODUCTION

Evaluating how research means to issue a judgment on the object being searched, giving visibility to what is real, compared to what could or should be, as: interests, effectiveness, operability, quality, technologies, services or health programs.¹ Through this perspective the Evaluation of Health Services comes as a research strategy to gain knowledge of the programs and services offered, proposing interventions to improve attention held, and permanent updating of professionals.

The evaluative research can play numerous social functions, among them, aid in making decisions of a political nature, a way to transpire for the functioning of social institutions, social learning, promotion of democracy and civic education, promoting improved public management proposals and consequent social empowerment.²

This type of research has changed over the years. Initially the inquiries sought, especially, only quantitatively measured results. However with the implementation of new policies, the emergence of new interests, new social perspective, the appreciation of the characteristics considered subjective forces were taking and this type of quantitative research were no longer being enough for the demand. With it became necessary to update the form and objectives of the research of evaluative character, thus beginning the qualitative assessments of health services. Some authors call these different styles and their different approach as "generations" or emerging approaches.^{2,3}

The range of evaluative studies, health services, existing currently work as important instruments which are reflected reality and underpin the development of new strategies for action. Because of this, a bibliometric study on the theme of evaluation of health services will allow the quantification of the production and dissemination of this specific knowledge, reporting on the number of production, the approach used in the studies, the prevalent method in addition to promoting bibliographic control the subject.

Bibliometrics is a statistical tool used for mapping and management of different indicators related to the topic of research. It provides a quantitative tool, which enables the organization and systematization of scientific information regarding the theme, showing in numerical data the publications. However, journals, countries, issues and institutions also feature a bibliometric study.^{4,5,6}

The choice to conducting this study indicates the need to recognizing what has been produced in Latin America about health evaluation. This study aimed to describing the scientific publications from the abstracts in the bases of the Latin American online data on "evaluation of health services" in the period 2000-2013.

METHOD

A bibliometric, descriptive study with a quantitative approach with analysis of articles published by professionals and students in the area of health in the database LILACS, SciELO virtual library and database CEPEn on the Thematic Evaluation of Health Services, from 2000 to 2013. Had as guiding question << *What has been produced in scientific productions online databases in Latin America about the subject evaluation of health services in the period 2000-2013?* >> The choice of the period from the year 2000 was due to the search for more current publications considered.

The search occurred using as descriptor "evaluation of health services"; "health services evaluation" in Descriptors of Health Sciences (DeCS), researching in the Electronic Library of Brazilian Scientific Journals Scientific Electronic Library Online (SciELO) and on the basis of Latin American Literature data and Caribbean Health Sciences (LILACS), considering the special interest in nursing publications widened the search in the Brazilian Nursing Association (ABEn) Centre for Studies and Research in Nursing (CEPEn).

Data collection began with the meeting of the summaries prepared table in Microsoft Word® and after reading and appreciation of these, there were made according to pre-established criteria: abstracts are available online and free, with texts in Portuguese, English and Spanish; having been published since 2000; be according to the theme proposed by the study.

Completed this stage of data collection, the texts were organized from an instrument of systematization built in the shape of a table in Microsoft Excel®. These data were analyzed by using the relationship: (1) total number of abstracts found in each database; (2) type of work that identifies the work refers to the scientific article, thesis, dissertation or thesis; (3) year of publication; (4) institution/periodical linked with the publication; (5) what is being evaluated in the published work; (7) the research subjects; (8) methodology to the study published; (9) methodological strategies, where they found

what were the instruments used for data collection.

The selected studies were classified by similarities from reading the abstracts, assimilated within predefined categories mentioned above. It is noteworthy that the duplicate texts were excluded from the study. This study is a desk research, in which data are made available in a public character, but were respected ethical precepts involved with regard to the analysis and dissemination of research data.

RESULTS AND DISCUSSION

Considering the consultation held in January 2014 in SciELO electronic library in database LILACS and CEPEN catalogs using "evaluation of health services" or "health services evaluation," including all available indices, were found 439 publications, and were excluded: 102 jobs that do not understand the period 2000-2013, 92 jobs that did not have abstracts available, 56-were repeated in 31 databases and publications that did not work with the theme of health assessment. Thus an amount of remaining 158 publications in scientific papers, dissertations and thesis format, as shown in the flowchart:

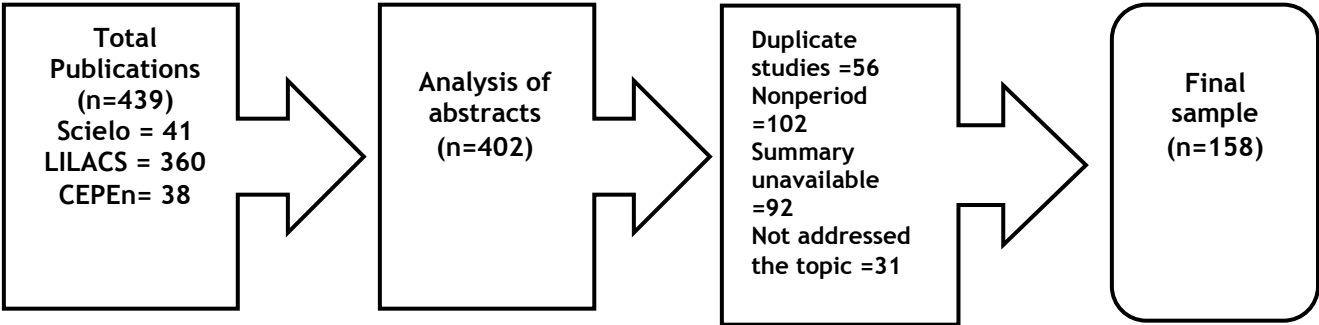


Figure 1. Sample data flow diagram.

Analyzing the 158 publications identified from this selection, there was a greater number of productions in 2004, in which were indexed 14,55% of published, then in 2008,

13,29%, in 2007, 20 publications (12,65%). The years with the lowest publication were 2002 and 2003 with less than 05 posts each, as can be seen by in Figure 2:

Year	Number	Percentage (%)
2013	7	4,43
2012	13	8,22
2011	10	6,32
2010	11	6,96
2009	11	6,96
2008	21	13,29
2007	20	12,65
2006	13	8,22
2005	12	7,59
2004	23	14,55
2003	4	2,53
2002	3	1,89
2001	5	3,16
2000	5	3,16

Figure 2. Temporal distribution of scientific literature on health assessment (2000-2013).

In the past two decades, Latin America has witnessed new initiatives and government strategies, and society in pursuit of health care reform, aimed at improving the quality and coverage of services offered. Accompanying these changes, evaluations of health services have become increasingly present practices, with a strong interest in recognizing more subjective and participatory approaches.⁷

Regarding published work, from the 158,98 (62,03%) were articles, 33 (20,89%) dissertations, 12 (7,59%) theses, eight (5,06%) monographs, two (1,27%) texts for discussion and only one (0,63%) as notebook of technical

information. In four texts was not possible to identify the type of work in the abstract.

Among the papers analyzed, 21% were published in journals with Qualis A1 and A2.⁸ This fact shows that the issue of health assessment has been disseminated in journals with high impact on the scientific community, reflecting positively to the production of knowledge.

With regard to theses, dissertations and monographs, the Southeast had the most work done, totaling 22,9% related to this topic. This fact can be justified due to the Southeast have the highest number of Graduate Programs (24) of Brazil, having consolidated groups with broad experience in the subject

taking shape in an academic reference center with considerable impact on scientific production area.⁹

There were found 76 sites of publications in Latin America, covering countries like Brazil, Chile, Venezuela, Nicaragua, Argentina, Cuba, Honduras, Panama and Mexico. In the searched databases, publications in journals and Brazilian institutions are at a higher number, with 144 publications (91,14%), followed by Chile with 5 posts (3,16%), Cuba, 3 posts (1,9%), Nicaragua and Panama, two (1,27%) publications each, Mexico, Honduras and Argentina, with only one publication (0,63%) each. This difference may occur because Brazil is the country with the largest population and largest number of universities and consequently, researchers, and there is also the Center of Studies and Research in Nursing (CEPEn) largest bank of theses and dissertations in the area of Nursing that is uniquely Brazilian.

With reading the summaries of published texts there were identified a variety of issues about what has been assessed by these surveys (CHART 2). It is noticed that most of the jobs directly evaluate health services and their quality (23,42%) and the health care provided by these services (29.75%). In this same area, we evaluate also the health

programs, the impact of its implementation, and the adequacy of the services proposed by health programs (11,39%), public health policies (2,53%). Some studies assess more of a focus / theme in the same survey.

The deployment and coverage of health programs and services (5,06%), users' access to treatment and services (2,53%), the resources available for service (1,9%), the structure of environments care health services (1,27%) also accounted in evaluative research included in this work.

Assessment practices are gaining more space, because they bring certain results that underlie social policies and programs, in addition to transpire interventions that are occurring and allow to demonstrate the effectiveness of health services and programs.¹⁰ The main objective is the evaluations of health services is maintained, the impact of the programs and their effectiveness, giving technical advice on public policy.¹¹ thus, from the results obtained, the character evaluative research can serve as a driving tool for creating strategies to achieve the goal initial services, programs, interventions.¹²

Themes	Number	Percentage (%)
Structure and environment	48	30.37
Resources available	38	24.05
Access to the service	21	13.29
Public health policies	19	12.02
Cover	11	6.96
Theoretical/conceptual	8	5.06
Health programs	4	2.53
Evaluative Instruments	4	2.53
Quality of services	3	1.89
Health assistance	2	1.27

Figure 3. Distribution of subjects evaluated in publications about evaluation in health (2000-2013).

It appears that many of the published texts are not performing evaluative research, and thus, design, implementation and validation of tools and methodologies for assessing health services (12,66%). Other publications presenting concepts theoretically work on evaluation, discussions about the importance of evaluating a health service, and the sharing of knowledge already built on this theme (6,33%).

In research on the topic of evaluation of services in Latin America, it is identified that the majority of the work was of a theoretical nature, especially essays, reviews, manuals and guides. Is evident in the research literature on this critical outcome this result, it states that prevails an attitude of saying what "should be" rather than presenting

results and reflections on the practice of evaluation.²

As research subjects, in most evaluations, data collection occurs with people using health (patients / users) services, totaling 45,57% of the studies. The fact that the evaluations are mostly carried out from the perspective of users meets the strengthening of social control, complying with community participation in planning and evaluation of services and collaborating with the construction of a democratic country, incorporating people in decisions and government programs.^{12,13}

Health professionals participated as subjects in 20,89% of the searches. Families, students, managers and administrators also appear as participants. Documentary and

theoretical bases are present as a source of data, being at 6,33% of the studies. Importantly, some of the research have more than one type of informant subject, may involve users, professionals, family members, documents, among others.

Appeared 24 different methodologies used for such studies, and those with evaluation methodology character (evaluation of health services, fourth generation evaluation, cross-evaluation applied, process evaluation and evaluative research) appeared as method adopted in 18 studies (11,39%). The 28 theoretical studies (17,72%), which used methodologies for discussion, building, knowledge sharing, among others, have been identified. Also present were descriptive studies, descriptive, exploratory and descriptive, exploratory, totaling 10.13% of the abstracts. Important information found in these works is that 36,71% of the abstracts do not specify what research methodology has been used, or the approach. However, the abstracts that have brought this figure, it can be seen that 47 (29,75%) are quantitative approach, 20 (12,66%) qualitative approach, and six (3,8%) for quantitative and qualitative approach. This confirms the existence of a quantitative approach as being still the most widely used for this type of evaluative research.

Emerging approaches are considered evaluative research methodologies that break with the authoritarian models inserted in positivist paradigms. Research on these emerging nontraditional approaches aim beyond the purely evaluation said; it seeks the democratization of institutions, lifelong learning, empowerment of individuals and groups, and social strengthening and transparency.² These methodologies receive different names by different authors, such as: qualitative/participatory evaluation; democratic; of empowerment; fourth generation; interpretive, among other.^{1,2,3}

For data collection were used several strategies, which identifies that the most used are the interviews, present in 28 studies (17,72%), and the questionnaires, in 20 studies. The research using analysis contained in document databases as records, records, historical documents, are part of the methodological strategy of 26 jobs (16,46%). The observation is also emphasized in evaluative research, part, as a strategy, 11 studies (6,96%). It is also evident, the use of different structured and specific for each type of survey instruments, being found in this survey, 16 different instruments used as a strategy for data collection studies.

CONCLUSION

The publication of texts about the evaluation of health services in Latin America has gained increased focus in recent years, bringing in its core Brazil, as an important disseminator of publications with high impact to the health sector. Indicating, as well, that, considering the amount of research conducted in the area of health, studies about this evaluative subject are still limited, not bringing a real reflection for the evaluation of health services. That's why we consider necessary to the development of new research aimed at assessing health services seeking to meet with transparency the work process and functioning of health services, understanding their needs, in different looks of different subjects involved, seeking an evolution of the system and expanding the quality of these services to population.

REFERENCES

1. Bosi MLM, Uchimura KY. Avaliação qualitativa de programas de saúde: contribuições para propostas metodológicas centradas na integralidade e na humanização. In: Bosi MLM, Mercado FJ. (Org.). Avaliação Qualitativa de Programas de Saúde: enfoques emergente. Petrópolis: Vozes; 2006. p. 87-117.
2. Mercado F, Hernández N, Tejada LM, Springett J, Calvo A. Avaliação de políticas e programas de saúde: enfoques emergentes na Ibero-América no início do século XXI. In: Bosi MLM, Mercado FJ. (Org.). Avaliação Qualitativa de Programas de Saúde: enfoques emergentes. Petrópolis: Vozes, 2006. p. 22-56.
3. Guba EG, Lincoln YS. Fourth generation evaluation. Newbury Park, Sage Publications [Internet]. 1989 [cited 2013 June 06]. Available from: http://books.google.com.br/books?id=k_zxEUst46UC&printsec=frontcover&dq=fourth+generation+evaluation+-+guba+e+lincoln&hl=pt-BR&ei=kmLtTe6tCcnLQQGqkP2_AQ&sa=X&oi=book_result&ct=book-thumbnail&resnum=1&ved=OCDAQ6wEwAA#v=onepage&q&f=true.
4. Guedes VLS, Borschiver S. Bibliometria: uma ferramenta estatística para a gestão e do conhecimento, em sistemas de informação, de comunicação e de avaliação científica e tecnológica. Proceedings of CINFOM- VI Encontro Nacional de Ciências da Informação; Salvador, Bahia; 2013.
5. Faria NGF, Peres HHC. Análise da produção científica sobre documentações fotográficas de feridas em enfermagem. Rev

eletrônica enferm [Internet]. 2009 [cited 2013 June 06];11(3):704-11. Available from: <http://www.fen.ufg.br/revista/v11/n3/v11n3a31.htm>.

6. Farias RC, Silva CR L da. Análise bibliométrica do referente fadiga de alarmes como objeto de investigação científica em saúde: revisão sistemática. J Nurs UFPE on line [Internet]. 2013[cited 2014 feb 13];7(spe):6223-32. Available from: http://www.revista.ufpe.br/revistaenfermage/index.php/revista/article/view/5074/pdf_37857

Bosi MLM, Mercado-Martinez F. Modelos avaliativos e reforma sanitária brasileira: enfoque qualitativo-participativo. Rev Saúde Pública[Internet]. 2010 [cited 2013 June 06];44(3):566-70. Available from: <http://www.scielo.br/pdf/rsp/v44n3/22.pdf>.

7. Ministério da Educação (Brasil). Qualis periódicos 2010. Brasília, 2010. [cited 2011 Mar 20]. Available from: <http://www.capes.gov.br/avaliacao/qualis>.

8. Coordenação de Aperfeiçoamento de Pessoal de Nível Superior- CAPES (Brasil). Relação de Cursos Recomendados e Reconhecidos. Área: Enfermagem. Brasília; 2011 [cited 2013 June 05]. Available from: <http://conteudoweb.capes.gov.br/conteudoweb/ProjetoRelacaoCursosServlet?acao=pesquisarles&codigoArea=40400000&descricaoArea=CI%C3%26%23131%3B%26%23138%3BNCIAS+DA+SA%C3%26%23131%3B%26%23154%3BDE+&descricaoAreaConhecimento=ENFERMAGEM&descricaoAreaAvaliacao=ENFERMAGEM>.

9. Bosi MLM, Mercado FJ. (Org.). Avaliação Qualitativa de Programas de Saúde: enfoques emergente. Petrópolis: Vozes; 2006.

10. Melo MB, Vaitsman J. Auditoria e avaliação no Sistema Único de Saúde. São Paulo perspect [Internet]. 2008 [cited 2013 June 06];22(1):152-164. Available from: <http://www.esp.mg.gov.br/wp-content/uploads/2009/04/Artigo-Auditoria1.pdf>.

11. Batista AA, Muniz JN, Neto JAF, Cotta RMM. A Contribuição da Pesquisa Avaliação para o Processo de Implementação do Controle Social no SUS. Saúde Soc [Internet]. 2010 [cited 2013 June 06];19(4): 784-93. Available from: <http://www.scielo.br/pdf/sausoc/v19n4/06.pdf>.

12. Armigliato ME, Prado DGA, Melo TM, Martinez MANS, Lopes AC, Amantini RCB, et al. Avaliação de serviços de saúde auditiva sob a perspectiva do usuário: proposta de instrumento. Rev soc bras fonoaudiol [Internet]. 2010 [cited 2013 June 06];15(1):32-39. Available from:

http://www.scielo.br/scielo.php?script=sci_arctext&pid=S1516-80342010000100008&lng=en

Submission: 2014/02/19

Accepted: 2014/10/01

Publishing: 2015/04/15

Corresponding Address

Bruna Pedroso Canever
Rua Jornalista tiro de Carvalho, 101, Bl. B.2.1 / Ap.102
Bairro Trindade
CEP 88040-480 Florianópolis (SC), Brazil