

PUBLIC HEALTH SERVICES: BIBLIOMETRIC STUDY OF SCIENTIFIC LITERATURE FROM THE PERSPECTIVE OF INNOVATION IN SERVICES IN PRIMARY HEALTH CARE

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ABSTRACT

The objective of the research was to identify the nearest state of the art relating the elements of innovation, services and primary health care, through a bibliometric analysis. The research sought to articulate some elements such as technology, structure, government, professionals and customers/users that are associated with the generation of innovation in health services. The findings showed the government element playing an important role in the generation of innovation in health, by promoting the market with investments and resources to health and to purchase services from providers. However, it's not highlighted in the literature as an essential condition for innovation to occur. Finally, highlighted the limitations and future work opportunities urging a critical-reflexive perspective on the need for an integrated approach showing the combination of elements such as structure, technology, government, professionals and customers present in the occurrence and success of implementation of innovation.

Keywords: *Innovation, Public Health Services, Primary Health Care*

1. INTRODUCTION

The need to articulate issues that trespass itself, their units of analysis, it is relevant in the context of disciplinary complexity. Studies on conspicuous innovation by a technological perspective, development, marketing, specific processes and skills involving the manufacture of products, particularly in the field of applied social sciences. However, the literature on the development and articulation between the dichotomy product and process involving innovation in services, in health, requires further elaboration.

Since the launch of the book Theory of Economic Development (Schumpeter, 1912), the innovation theme has been exhaustively analyzed, discussed and theorized. Thus, innovation assumes a new product or service, a new process, a new form of distribution and significant changes made to the organization. It is, therefore, a mapping in a multi-dimensional perspective that takes into account the nature of the innovation interacionada (Sundbo and Gallouj, 1998a; 1998b; Gallouj, 1994; Fleuren *et al.*, 2004; Gadrey, 1994; Gallouj, 2002a; Den Hertog *et al.*, 2010). Under the aspect of the analysis of the concepts of innovation and characteristics of technological origin, it is necessary to expose analysis of evidence in relation to services and health. The Oslo Manual was developed jointly by the European Statistics (Eurostat¹) which states that innovation can occur in any sector of the economy, including government services such as health and education (OECD, 2005; Eurostat, 2007).

¹ Eurostat is the official office of statistics to the European Community offering various data and government, business information among others. For additional information, available at:
<<http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home/>>.

The administrative structure of government and public policies have been influenced by health issues since the First National Conference on Science and Technology in Health (S&T/H), in 1994 (Pereira *et al.*, 2004) According to this document, the health sector contributes to economic development through complex and articulated production to various other sectors of society, as in the case of services.

The innovation in the provision of health services can be represented as a new set of behaviors, routines and ways of working that are targeted to improve health outcomes, administrative efficiency, cost-effectiveness, or the experience of users, which are implemented by planned and coordinated actions (Greenhalgh *et al.*, 2004).

In this context of health services, primary health care (PHC) was adopted almost universally and is the essence of reorientation and restructuring of many health systems, as Atun *et al.* (2007), Nyong'o *et al.* (2005), Pan American Health Organization (PAHO), 2005, as it acts as an organizing and integrating core network services and health promotion, prevention and recovery. As highlights the Canadian Health Services Research Foundation (CHSRF, 2010), innovation issues in APS are determined by adaptation, in developing a culture of excellence and continuous improvement in pursuit of quality in the organization. Thus, the analysis of industriousness PHC becomes a determining factor in the evolution of health systems at local, regional and national level.

This research starts from the principal point of reference to evaluate the services of innovation concepts, as follows, with the seminal ideas, a broad perspective, based on the Schumpeterian definitions of innovation, as exposed previously, which are closely related to economic development and therefore, social development. The current development of an approach to evaluating innovation in services can not, in any way, to abstract the fundamental and original concepts of innovation, because they would be relegating all the main aspects of economic studies that led to the innovation of themes (Drejer, 2004).

A study addressing the dynamics of innovation in health services is justified by its complexity, social and economic relevance. Also, if justified by the difficulty of analysis and measurement of its processes (Pecukonis *et al.*, 2003). Regarding the APS, its relevance to the health system permeates social, economic, demographic and ideological consolidation through public policies (Mendes *et al.*, 2011). Considering that innovation is an inherent need for organizations, the question that emerges from this preliminary assessment of the impact of innovation in health services is to clarify how the elements involved in the process are being developed in the literature. In this way, the objective in this research attempts to make an approximation of the state of the art relating innovation elements, and APS services through a bibliometric analysis.

2. METHOD

From the bibliometric analysis that becomes possible to analyze the dissemination of information, the impact of publications by triad that involves the analysis of journals, authors and words preserving the laws that govern this procedure (Alves-Mazzotti and Gewandyszajder 1999; Price, 1965; Thomas, 2007). The investigative basis of this research was implemented from July 2012 to July 2013, through metasearchers Scopus and Web of Science (Thomson Scientific). Thus, according Ginexi and Hilton (2006) we tried to ensure the principles of bibliometric research, identifying the quality of scientific contribution through articles from the impact on long-term science, as well as the evaluation of magazines through impact indices, by indexing into databases in order to allow the acquisition of a cohesive body in theoretical reasoning regarding the analysis object it proposes that research.

In terms of analysis algorithms, the main differences between the Journal Citation Reports (JCR indicator) Web of Science and the SCImago Journal Rank (SJR indicator) Scopus derive mainly in scientific databases used as reference sources and the from differences in the estimation methodology of these indices. Considering the source database, the SJR can provide a more comprehensive estimate the scientific value of the magazines, particularly for those published in languages other than English (Falagas *et al.*, 2008). In addition, the Web of Science considers the quote from a subset of source journals, in line with the Bradford Law, excluding some journals published in languages other than English, a factor that can influence the final result. Given these ambiguities, led to this stage of the research, considering the two largest metasearchers global scientific information (Gladwin *et al.*, 2001), so that they could appeal to the largest number of publications related to the search object.

In consistent identification of terms to be used in research, we sought to classification by the National Commission of Economic Activities (NCEA²), under the responsibility of IBGE (2009), which uses the

² For additional information, visit <<http://concla.ibge.gov.br/classificacoes/por-tema/atividades-economicas>>.

classification methodology of the service sector defined by Standard Industrial Classification under the responsibility of the United Nations (UN). Thus, of the 21 sections in the document, on economic activity in the services sector, Human and Social Services Health correspond to one (Faulkner *et al.*, 2003). Given this section, was selected keywords consistent with the research problem, ie APS, services and innovation. Thus, as an inclusion criterion, set up the search expressions, documents to bring the association of the following words, using more than one field for analysis: "Primary Care" and "Primary Health Care" and "Innovation in servisse" or "Innovation in services".

The definition of "Innovation in servisse" or "Innovation in services" was used in order to delimit the analysis of the topics proposed in the article and also to avoid a broad concept of innovation associated, sometimes used as a substitute for creativity, knowledge, or change (Droege *et al.*, 2009). The term "Primary Care" or "Primary Health Care" were considered in the research because for Shi (2012) the term "Primary Care" in the eastern and western European countries, show of family medicine services normally provided by medical patients individual, therefore to be considered a personal-oriented action. Descriptions of the search result items in metasearchers are highlighted in Table 1.

In Scopus, the initial analysis of the search expression was from the selection of the title search fields, abstract and keyword, in the same round of selection. In the case of Web of Science, the search expressions were submitted to the topic search field (topic and subject) and title in two rounds of selection, since only one element disponibilizava tool for search field, despite providing the addition of various fields of research. Therefore, we performed the analysis in two rounds, to minimize errors of interpretation of articles at the time of search.

Another aspect to be emphasized was the analysis period that included the entire available from the years offered by metasearchers, being considered all types of documents. Other inclusion criteria were the choice of the area of interest, which comprised the social sciences - Social Sciences and Humanities - in order to place particular evidence analysis of this field.

Table 1. Search Result articles in metasearchers.

Metasearch	Scopus	Web of Science
Expression Search	"Primary Care" or "Primary Health Care" and "Innovation in service" or "Innovation in services"	"Primary Care" or "Primary Health Care" and "Innovation in service" or "Innovation in services"
Search field	Abstract, Title and Keyword	1st topic - (Theme and Subject) and 2nd topic - Title
Period	1960 - 2012	1945 - 2012
Area of Interest / Domain Search	Social Sciences and Humanities	Social Sciences and Humanities
Result Analysis	102	97

Source: Authors

After this step, identifying the items that appear in both metasearchers, underwent read all abstracts, which consolidated in 102 documents, using as inclusion criteria, items that had at least one citation and presented in its structure recurrence thematic units that are related from multidimensional concepts of innovation process, in order to standardize the sample: a) technology; b) structure; c) professionals; d) government; e) customers / users. Thus, the final result obtained by an analysis of 50 items.

Finally, consolidated the material Excel spreadsheet elencando per item the amount of citation of different metasearchers, the identification of the authors of the papers, SJR, JCR, article summary and rating thematic unit, According to the reading of the entire document.

3. RESULTS

In the operational aspect, we observed a similarity in the search for articles on the metasearchers, with minor discrepancies in the number of citations and hence the indicator of these magazines, as regards the scores indicated by the SJR and JCR. Also, the content was evaluated as the number of articles published in a certain time period over the total number of a journal citations. The H index is also assessed in relation to the researcher (Hirsch, 2005). Thus, the search for the words "Primary Care" or "Primary Health Care" and "Innovation in service" or "Innovation in services", the authors with the highest rate H were: Starfield, B. (H: 58), Robert, G. (H: 44), Grumbach, K. (H: 42) Bodenheimer, T. (H: 39), Shi, L. (H: 38), Greenhalgh, T. (H: 31) Macinko J. (H: 18), among others. The result also showed that the magazines that presented more papers were the Social

Science and Medicine (H: 129) and the Health Care Management Review (H: 29) among others, in a very heterogeneous sample.

When considering an annual review, from 2001 to 2012, and also the search expressions there was an increase of 12% per year on a constant geometric proportion in both metasearchers representing the interest and relevance, under a scientific perspective on the topics listed in this research. In general, studies evidenced present to some extent the difficulty in distinguishing the dichotomy product and process. The arguments involved in this field of research related to the notion that a clear distinction between the product and the parts of the process of a service is almost impossible (Den Hertog *et al.*, 2010; Gallouj and Savona, 2009), due to the fact the service is not an artifact, but a process that develops over time (Gallouj, 2002a). In Table 2, the highlight was the thematic units in the relationship with found items.

Table 2. Result of articles analyzed according to thematic unity

Author / Year of Publication	Paper	Citation Scopus	Citation Web of Science	Thematic Unity
Greenhalgh <i>et al.</i> (2004)	Diffusion of innovations in service organizations: Systematic review and recommendations	912	872	Technology Government Professionals Structure Customers/Users
Starfield <i>et al.</i> (2005)	Contribution of primary care to health systems and health	630	518	Technology
Yarnall <i>et al.</i> (2003)	Primary care: Is there enough time for prevention?	566	482	Structure
Whitlock <i>et al.</i> (2002)	Evaluating primary care behavioral counseling interventions – An evidence – based approach	187	291	Structure
Bodenheimer (2006)	Primary care – Will it survive?	195	168	Technology
Goddard e Smith (2001)	Equity of access to health care services: Theory and evidence from the UK	149	112	Professionals
Campbell <i>et al.</i> (2007)	Quality of primary care in England with the introduction of pay for performance	184	161	Government
Grumbach e Bodenheimer (2004)	Can health care teams improve primary care practice?	172	153	Professionals
Fleuren <i>et al.</i> (2004)	Determinants of innovation within health care organizations. Literature review and Delphi study	105	94	Structure
Rohrbach <i>et al.</i> (2006)	Type II translation: Transporting prevention interventions from research to real – world settings	99	81	Structure Customers/Users
Cohen <i>et al.</i> (2004)	A practice change model for quality improvement in primary care practice	83	72	Structure
Shields <i>et al.</i> (2007) ⁷¹	Adoption of health information technology in community health centers: Results of a national survey	49	42	Technology
Light (2001)	Managed competition, governmentality and institutional response in the United Kingdom	38	24	Government

Liu <i>et al.</i> (2001)	Impact of rural hospital closures in Saskatchewan, Canada	26	18	Structure
Ginexi e Hilton (2006)	What's next for translation research?	21	16	Government
Atun <i>et al.</i> (2006)	Introducing a complex health innovation – Primary health care reforms in Estonia (multimethods evaluation)	28	23	Technology Government Professionals Structure Customers/Users
Nyonator <i>et al.</i> (2005)	The Ghana Community – based Health Planning and Services Initiative for scaling up service delivery innovation	20	12	Structure Professionals Customers/Users
Ford <i>et al.</i> (2004)	Sustainable network advantages: A game theoretic approach to community – based health care coalitions	20	11	Structure
McIntyre e Klugman (2003)	The human face of decentralisation and integration of health services: Experience from South Africa	20	11	Government
Ballard (2003)	Indicators to improve clinical quality across an integrated health care system	17	13	Technology
Otani e Tierney (2003)	A paradigm shift in patient satisfaction assessment	17	13	Customers/Users
Faulkner <i>et al.</i> (2003)	A systematic review of the effect of primary care – based service innovations on quality and patterns of referral to specialist secondary care	20	16	Structure
Atun <i>et al.</i> (2007)	Diffusion of complex health innovations – implementation of primary health care reforms in Bosnia and Herzegovina	15	15	Government Technology
Armstrong <i>et al.</i> (2005)	Reinventing Veterans Health Administration: Focus on primary care	13	9	Structure
Chreim <i>et al.</i> (2010)	Change agency in a primary health care context: The case of distributed leadership	12	11	Structure
Pecukonis <i>et al.</i> (2003)	The future of health social work	12	7	Professionals Customers/Users
Gladwin <i>et al.</i> (2002)	Rejection of an innovation: Health information management training materials in east Africa	12	11	Technology
Balabanova e McKee (2002)	Access to health care in a system transition: The case of Bulgaria	12	9	Structure
Waterman <i>et al.</i> (2007)	The role of action research in the investigation and diffusion of innovations in health care: The PRIDE project	10	7	Technology
Michener <i>et al.</i> (2005)	Making a home in the community for the academic medical center	10	8	Structure
Bedregal e Ferlie (2001)	Evidence based primary care? A multi – tier, multiple stakeholder perspective from Chile	10	6	Government

Grigsby (2002)	Telehealth: An assessment of growth and distribution	9	7	Technology
Parfitt e Cornish (2007)	Implementing Family Health Nursing in Tajikistan: From policy to practice in primary health care reform	8	0	Professionals
Charles-Jones <i>et al.</i> (2003)	Telephone triage by nurses in primary care: What is it for and what are the consequences likely to be?	8	6	Professionals
Anthony (2003)	Changing the nature of physician referral relationships in the US: The impact of managed care	7	5	Professionals Customers/Users
Hamilton <i>et al.</i> (2002)	Service innovation: The first year of a brief psychiatric screening clinic in primary care	7	4	Structure
Wakerman e Humphreys (2011)	Sustainable primary health care services in rural and remote areas: Innovation and evidence	4	4	Government Structure
Thomas <i>et al.</i> (2006)	Innovation and change: Shaping district nursing services to meet the needs of primary health care	5	4	Professionals Customers/Users
Warne <i>et al.</i> (2007)	Learning to listen to the organisational rhetoric of primary health and social care integration	4	4	Technology Professionals
Meads <i>et al.</i> (2005)	Transferable learning from international primary care developments	4	2	Government
Barnett <i>et al.</i> (2011)	Understanding innovators experiences of barriers and facilitators in implementation and diffusion of healthcare service	4	1	Technology
Chang <i>et al.</i> (2007)	Beyond Medical Care: How Health Systems Can	3	1	Professionals
Blenkinsopp <i>et al.</i> (2008)	Medicines use review: Adoption and spread of a service innovation	3	1	Technology
Roblin <i>et al.</i> (2003)	Primary health care teams: Opportunities and challenges in evaluation of service delivery innovations	3	1	Professionals
Luck e Peabody (2002)	When do developing countries adopt managed care policies and technologies?	3	1	Technology
Stanton (2001)	Competitive health policies and community health	3	0	Government
Lockett <i>et al.</i> (2012)	The role of institutional entrepreneurs in reforming healthcare	1	0	Professionals Government
Mitton <i>et al.</i> (2011)	Innovations in health service organization and delivery in northern rural and remote regions	1	1	Structure
Ilife (2002)	From general practice to primary care: The industrialisation of family medicine in Britain	1	0	Structure
Retchin <i>et al.</i> (2001)	Clinical service standards at academic health centers	1	0	Structure Technology

Source: Authors

3.1 Technology

Changes in the availability of new technologies and the contribution of technological change may have important implications for the health system, as it is believed that most of the growth in health care costs over the last few years is due to technological change (Shi, 2012). This finding can be developed in fifteen articles of the sample (Greenhalgh *et al.*, 2004; Starfield *et al.*, 2005; Bodenheimer, 2006; Shields *et al.*, 2007; Atun *et al.*, 2006; Ballard, 2003; Atun *et al.*, 2007; Gladwin *et al.*, 2001; Waterman *et al.*, 2007; Grigsby, 2002; Warne *et al.*, 2007; Barnett *et al.*, 2011; Blenkinsopp *et al.*, 2008; Luck and Peabody, 2002; Retchin *et al.*, 2001). Rapid technological change also significantly improved the ability of medicine to treat the disease and therefore substantially improved the patient's well-being (Bodenheimer, 2006; Ballard, 2003; Luck and Peabody, 2002; Retchin *et al.*, 2001).

Technological innovations are of great importance in medical care, (Shields *et al.*, 2007; Waterman *et al.*, 2007; Grigsby, 2002), and the fast pace of change in technological innovations in medicine is undeniable, supported by research and development (R&D) as support and developers of their advances (Warne *et al.*, 2007; Blenkinsopp *et al.*, 2008).

Innovations refer to the introduction of medicines, medical and surgical devices and procedures used in medical care, organizations and support systems within which such care is delivered (Greenhalgh *et al.*, 2004; Smith, 2006; Ballard, 2003). Technological progress as a major health care engine raises costs while providing greater efficiency in care and disease prevention, reiterating the government's role as developer of research and incentives (Greenhalgh *et al.*, 2004; Starfield *et al.*, 2005; Ballard, 2003; Gladwin *et al.*, 2001; Waterman *et al.*, 2007).

The capacity for innovation in a model of technological innovation services providers include the innovations made in technologies, methodologies and formal procedure for the creation and delivery of a service. These innovations can be radical or incremental (Gallouj and Weinstein, 1997). An example in the health field is the incorporation of a new diagnostic technology, resonance, which, until his arrival to treatment centers, even doctors and patients knew of its diagnostic aid, its demand did not exist, and is now one most important tool, with specialized clinics offering this service (Barnett *et al.*, 2011; Blenkinsopp *et al.*, 2008). In health services, incremental innovations can be described as changes in organizational processes, improvements in the care offered to patients, small technological changes that improve the quality of care (Greenhalgh *et al.*, 2004; Starfield *et al.*, 2005).

3.2 Structure

There is evidence that an organization will assimilate and generate innovations in services more easily if you have a suitable structure for this usually mature, functionally differentiated, specialized, focusing on professional, with resources to channel ideas into new projects with making structure decentralized decision and a well-structured communication. So were twenty articles that consolidated this perspective (Greenhalgh *et al.*, 2004; Yarnall *et al.*, 2003; Whitlock *et al.*, 2002; Fleuren *et al.*, 2004; Rohrbach *et al.*, 2006; Cohen *et al.*, 2004; Liu *et al.*, 2001; Atun *et al.*, 2006; Nyongator *et al.*, 2005; Ford *et al.*, 2004; Faulkner *et al.*, 2003; Armstrong *et al.*, 2005; Chreim *et al.*, 2010; Balabanova and McKee, 2002; Michener *et al.*, 2005; Hamilton *et al.*, 2002; Wakerman and Humphreys, 2011; Mitton *et al.*, 2011; Iliffe, 2002; Retchin *et al.*, 2001).

An important use of knowledge in healthcare organizations is the application of evidence-based research to the structural effectiveness in health, usually in diagnostic tests, drugs, surgical procedures, among others, changing their practice accordingly (Liu *et al.*, 2001; Balabanova and McKee, 2002; Hamilton *et al.*, 2002; Mitton *et al.*, 2011). The dissemination of knowledge depends on your outstanding interpersonal networks that will spread only if these social characteristics are taken into account and the barriers are overcome (Hamilton *et al.*, 2002; Mitton *et al.*, 2011; Iliffe, 2002). An innovation that fits with the values, standards, strategies, goals, skills mix, support for technologies in the organization and ways of working are more easily assimilated and implemented (Yarnall *et al.*, 2003; Rohrbach *et al.*, 2006).

3.3 Professionals

One of the main obstacles to innovation services is the lack of sufficient management capacity to induce and deliver the innovation processes in companies' services; is the lack of a learning system through which the experience, so to speak, individual companies, which could be transmitted to other companies so that they could learn from what has been experienced and learned.

From this perspective, fourteen sample of articles present people are not passive recipients of innovations (Greenhalgh *et al.*, 2004; Goddard and Smith, 2001; Grumbach and Bodenheimer, 2004; Atun *et al.*, 2006; Nyong'o *et al.*, 2005; Pecukonis *et al.*, 2003; Parfitt and Cornish, 2007; Charles-Jones *et al.*, 2003; Anthony, 2003; Wakerman and Humphreys, 2011; Warne *et al.*, 2007; Chang *et al.*, 2007; Roblin *et al.*, 2003; Lockett *et al.*, 2012). Different people in levels, equally, different, organization, seek innovations. The experience in the activities helps them evaluate the meanings for themselves, returning feelings, positive or negative about them, challenging them to seek different solutions to meet specific tasks and try to improve or re-designing them, often by through dialogue with other users.

The decision by an individual within an organization to adopt a particular innovation is rarely independent of the decision of the other. The adoption of innovations by individuals is strongly influenced by the structure and quality of their social network (Pecukonis *et al.*, 2003; Anthony, 2003; Roblin *et al.*, 2003; Rogers, 1962).

Different groups have different types of social networks. Doctors, for example, tend to operate in horizontal informal network, and more nurses often have vertical formal network, different types of influence horizontal network are more effective to spread the influence of the couple and to support the construction of meaning and reframing; vertical network are most effective for information in coded waterfall and the transfer of authoritative decisions (Thomas *et al.*, 2006; Chang *et al.*, 2007).

An organization is more likely to adopt an innovation if the people who have significant social ties both within and outside the organization, are able and willing to connect the organization with the outside world for this particular innovation. Individuals have a key role in the capture of ideas and dissemination (Goddard and Smith, 2001; Thomas *et al.*, 2006).

Training and education are key factors that influence organizational innovation and its implementation (Gallouj, 2002a; 2002b). Training can create a positive mood and attitude by increasing familiarity and technical expertise. The training leads to more specialization, in turn, can lead to a deeper knowledge base, encouraging the exchange of ideas and promoting innovation. It can also lead to professionalism, implementation of more comprehensive and opening activities to new methods and ways of doing things (Pecukonis *et al.* 2003; Grumbach and Bodenheimer, 2004; Parfitt and Cornish, 2007; Charles-Jones *et al.*, 2003).

In this sense, the integration of expertise through individuals are associated with the development of organizational skills and routines (Grumbach and Bodenheimer, 2004; Atun *et al.*, 2006). Those powers of knowledge and reinforce the performance of business activities in which the organization is particularly skilled (Lockett *et al.*, 2012).

3.4 Government

The concept of the World Health Organization, published in the Charter of April 1948, implied the recognition of the right and obligation of the State in the promotion and protection of health, defining health as not only the absence of disease, but as the situation of perfect good physical, mental and social. In this sense, the government of Brazil plays two key roles: a) as a potential market requirements and generator to the innovative solutions developed by companies; b) as a generator of new market conditions by establishing new requirements and parameters for innovative solutions acquired from developing companies. Articles analyzed twelve have a government that fails to meet only the regulatory function shall perform consumer functions, assuming, in most economies, the role of largest purchaser of goods and services (Greenhalgh *et al.*, 2004; Campbell *et al.*, 2007; Light, 2001; Ginexi and Hilton, 2006; Atun *et al.*, 2006; and Klugman McIntyre, 2003; Atun *et al.*, 2007; Bedregal and Ferlie, 2001; and Humphreys Wakerman, 2011; Meads *et al.*, 2005; Stanton, 2001; Lockett *et al.*, 2012). Government purchasing decisions impact, therefore, not only the acquired products and services, but also their suppliers. Public procurement will no longer be seen as a support function and assume the condition of strategic activity.

Public policies should ensure innovation distribution capacity in larger systems (Light, 2001; Ginexi and Hilton, 2006). Ensure flexible interaction of the distributed system of knowledge producers with the public system of universities and other scientific institutions, higher education institutions and so on, to allow appropriate divisions of labor and R&D incentives is an important issue to foster innovation (Bedregal and Ferlie, 2001; Sundbo and Gallouj, 1998a; Lockett *et al.*, 2012).

3.5 Customers/Users

The participation of the customer/user in different forms, in the production of the service may be the most basic characteristic of the service activities, especially the knowledge-intensive (Sundbo and Gallouj, 1998a; 1998b).

Moreover, different functions of co-creation, as a user, payer and purchaser are also considered (Gallouj, 2002a; 2002b). This applies both to customers/users individual and organizational members, and depending on the context, the same person can perform the three functions: consumer, buyer and borrower. In health services the user interacts at any time the service is rendered to him, requesting changes in the care process. Unlike other areas, health, the patient or your doctor may change the service that was purchased, or to request care changes, the patient in this context may refuse to receive it, even though the organization has received for this service. Articles analyzed eight articles explore these variations (Greenhalgh *et al.*, 2004; Rohrbach *et al.*, 2006; Atun *et al.*, 2006; Nyonator *et al.*, 2005; Otani *et al.* 2003; Pecukonis *et al.*, 2003; Anthony, 2003; Thomas *et al.*, 2006).

There is space for customers/users in the service process, the line between producer and customer activity of the is flexible. This flexibility provides the opportunity for new organizational arrangements (Atun *et al.*, 2006; Otani *et al.*, 2003 Pecukonis *et al.*, 2003.). In many cases, these reallocations imply a redefinition of the relationship and the roles played by different actors, which often involves a systematic search of involvement of customers/users in the service production process.

The client systematic involvement in the service delivery system requires changes in the fundamental concepts and connections between them. This innovation is based on the observation that customers / users to perform certain activities in the process of delivering the service that have traditionally been performed by employees (Rohrbach *et al.*, 2006; Atun *et al.*, 2006). These customers/users can be seen as partial employees, and the ability to motivate them is crucial to the proper functioning of the delivery process. Thus, a service organization has to inform and educate their customers/users about their role and explain why it is beneficial for them to engage in co-production. The ability to motivate customers/users as co-producers can be seen as new skills to be developed (Anthony, 2003; Pecukonis *et al.*, 2003).

4. CONCLUSIONS

The justification for innovation in health services has included in the literature so far explored, improving productivity and efficiency, reducing costs, increasing quality and responsiveness, reducing variation in care practice and increasing the access to health services. According to the theoretical framework discussed, innovation in services is a multidimensional construct, which involves the arrangement of several variables depending on the context (Sundbo and Gallouj, 1998a; 1998b; Droege *et al.*, 2009).

With readings performed, it was noted that the government has an important role in the generation of innovation in health, by promoting the market with investments and resources to health and to purchase services from providers. However, it is not highlighted in the literature as an essential condition for innovation to occur.

It was emphasized also that the effective management, new diagnostic technologies, the search for continuous learning, employee motivation, communication is established and new skills are important for innovations in health care occur because from them new forms carry out the activities are offered and new treatment facilities are discovered. Thus, the contribution of the research was to present these associations to articulate the concepts and seminal approach to innovation, with specific activities in services would be inciting a critical-reflexive perspective on the need for a comprehensive approach, highlighting the association elements such as structure, technology, government, professionals and customers/users present in the occurrence and success of implementation of innovation.

It was noticed that there is an opportunity to research and publication with this approach, since the read articles cite lack of research in the area of innovation. It was also observed that product and process factors in the literature on innovation in health services, have various perspectives and different approaches, it is necessary to deepen some issues distinguishing hospital innovations (easier identification by the use of associated technology) of the PHC, which has a co-production of appeal of the service (provider-customer/ user) higher, suggesting an interface with the public policies of health care and the important role of government.

Another factor that the literature has highlighted is the role of people and their institutional relationships as developer innovation, future studies will explore these networks and joints would be timely, showing that innovation in health services need a communication process effective management and a stimulating environment. These questions become research process so that we can better understand a rich context of opportunities for researchers wishing to contribute to the theme of innovation in health care.

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