



INNOVATION IN PUBLIC SERVICES: EVIDENCE IN THE FAMILY HEALTH STRATEGY

INOVAÇÃO EM SERVIÇOS PÚBLICOS: EVIDÊNCIAS NA ESTRATÉGIA SAÚDE DA FAMÍLIA¹

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Abstract

This paper aimed to analyze the innovations in the Family Health Strategy (FHS) and their respective results. Therefore, a case study was carried out in the city of Campina Grande, municipality of the state of Paraíba. Data were collected through semi-structured interviews, focus groups, systematic direct observation, and documents. The analysis was performed using the method of content analysis with the aid of the software ATLAS.ti. The foundations of the New Public Service were adopted as a theoretical basis for analyzing the innovations. Fifteen predominantly incremental innovations were evidenced, resulting from an innovation process that involves, namely: access, selection, and development of new ideas and implementation and dissemination of innovations. Additionally, it was found that the teams enjoy a certain political and administrative autonomy, which contributes to the generation of new ideas from a bottom-up approach, driven by the daily challenges and initiatives of frontline professionals. The results of the innovations had a positive impact on social, care, and management aspects, the latter being the most highlighted by the interviewees. The findings advance the understanding of the effects of innovations on the services offered by the FHS and advance the adoption of a theoretical basis more adhering to the theme of innovation in public services.

Keywords: Innovation in the Public Sector. Family Health Strategy. Primary Health Care.

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Resumo

O artigo teve o objetivo de analisar as inovações na Estratégia Saúde da Família (ESF) e seus respectivos resultados. Para tanto, foi realizado um estudo de caso na cidade de Campina Grande, município do estado da Paraíba. Os dados foram coletados por meio de entrevistas semiestruturadas, grupos focais, observação direta sistemática e documentos. A análise foi realizada utilizando-se o método da análise de conteúdo com auxílio do *software* ATLAS.ti. Os fundamentos do Novo Serviço Público foram adotados como base teórica para análise das inovações. Evidenciaram-se quinze inovações predominantemente incrementais, decorrentes de um processo de inovação que envolve: acesso, seleção e desenvolvimento de novas ideias, implementação e difusão das inovações. Adicionalmente, constatou-se que as equipes gozam de certa autonomia política e administrativa, o que contribui para geração de novas ideias a partir de uma abordagem *bottom-up*, impulsionadas pelos desafios diários e iniciativas dos profissionais da linha de frente. Os resultados das inovações impactaram positivamente em aspectos sociais, assistenciais e gerenciais, sendo estes últimos os mais destacados pelos entrevistados. Os achados avançam no entendimento dos efeitos das inovações sobre os serviços ofertados pela ESF e na adoção de uma base teórica mais aderente à temática da inovação nos serviços públicos.

Palavras-chave: Inovação no Setor Público. Estratégia Saúde da Família. Atenção Primária à Saúde.

Introduction

Most of the studies addressing innovation in the public sector have focused on describing the motivating factors and explaining the innovation process at the expense of not describing the efforts that collaborate to elucidate the effects of innovative activity (VRIES; BEKKERS; TUMMERS, 2016). In Latin America, in particular, the literature on the subject is still limited and the role of the public sector in the innovative context is unclear, being common the belief that he is only a funder of innovation in other sectors and the emphasis on organizational complexity to innovate (CISNEROS, 2022). When researchers act differently, they base their findings on texts developed for the private sector (SOUSA *et al.*, 2015), which does not necessarily contribute to advancing the theme of innovation in the public sector (KANKANHALLI; ZUIDERWIJK; TAYI, 2017; DJELLAL; GALLOUJ; MILES, 2013).

From the perspective of public health, scholars have highlighted the urgency of more investigations that sum to mature the theoretical framework relevant to this sector and provide more accurate subsidies for the formulation of public policies (LIMA; DALLARI, 2020; DICLEMENTE, *et al.*, 2019; VICKERS, *et al.*, 2017; COSTA, 2016). In Brazil, in primary care, the Family Health Strategy (FHS) figures as a priority model of action for the provision of public health services, being an

instrument of innovation in health care that seeks to reorient actions according to the demands and needs of communities (NODARI *et al.*, 2019; BRITO; MENDES; SANTOS NETO, 2018).

In this context, the question is: how do innovations occur in the Family Health Strategy and what are the results resulting from their implementation? Therefore, the objective of this research was to analyze the innovations in the Family Health Strategy and their respective results. For this, a case study was carried out in Campina Grande, a municipality in the state of Paraíba, and a theoretical approach regarding the foundations of the New Public Service (NPS) was adopted (DENHARDT; CATLAW, 2017; KLUMB; HOFFMANN, 2016). The findings advance the understanding of the effects of innovations on social, management and care aspects of the FHS and advance the adoption of a theoretical basis more adhering to the theme of innovation in public services.

In addition to the introductory section, the second section discusses management models in public administration and innovation in the public sector and public health. Then, the methodological procedures and the results of the analysis of the investigated case are presented. Finally, the conclusions of the study are described.

Theoretical Foundation

The management of public administration has sought to match its actions and activities from the perspective of economic efficiency, following management standards typical of the private sector. This was felt mainly in the adoption of elements of the New Public Management (NPM) to replace patrimonial and bureaucratic models, which occurred not only in Brazil, but also in other emerging and developed countries (SILVA; MATTIA, 2016).

As a result of the NPM, although the State has advanced in the provision of services by treating the citizen as a consumer, it remains far from the focus on the public interest and democracy, besides granting the solving character of public problems to the private sphere (EUCLYDES; SILVEIRA, 2020; SILVA; MATTIA, 2016). In contrast, contemporary models of management in public administration have been disseminated in order to add new values that better consider the particularities of the public sector, as well as the democratic and political aspect of the State, such as the New Public Service (NPS). The NPS is envisioned as one of the institutional logics that best allow the public sector to innovate, as it emphasizes the understanding of the user as a citizen and not as a consumer, based on the search for the promotion of dignity and values that

reaffirm democracy, citizenship, and the public interest (EUCLYDES; SILVEIRA, 2020; DENHARDT; CATLAW, 2017; KLUMB; HOFFMANN, 2016; SANTOS; SELIG, 2014).

Innovation in the public sector involves, among other elements, the search for overcoming government failures, improving spending and the quality of public services, and increasing its legitimacy and trust by the society, allied to the demand for more social participation in the creation of public policies and in the combat against more complex public problems (*wicked problems*), such as global warming, environmental disasters, population aging, extreme poverty, and growing income inequality, among others (VRIES; BEKKERS; TUMMERS, 2016; EUROPEAN COMMUNITY, 2013). These factors have required the public sector to implement innovative policies that imply a transformative change that significantly affects what the public organization does and how it does it, leading to a rupture with past practices (CAVALCANTE; CUNHA, 2017; KATTEL, 2015; EUROPEAN COMMUNITY, 2013; OSBORNE; BROWN, 2011).

The definition of innovation in the public sector is dispersed and there is still no consensus on the establishment of its meaning (CISNEROS, 2022; MOUSSA; MCMURRAY; MUENJOHN, 2018). For the purposes of this paper, it is understood that innovation in the public sector is the implementation of a functional novelty that causes a transformative and lasting change, producing significant results for the operations and management of the public sector, for the elements of process and delivery of public services, and/or to society, leading to an impact of public value.

Thus, the value of innovation in the public sector is related to, namely: a) Results: individual and social, such as increased health, learning, job creation, security, and sustainable environment, etc.; b) Services: creation of more meaningful and useful services for end users; c) Productivity: improvement of the efficiency of the internal management of public organizations; d) Democracy: strengthening the engagement and participation of citizens, in order to ensure responsibility, transparency, and equality in society (CASTRO; ISIDRO-FILHO; MENELAU, 2017; EUROPEAN COMMISSION, 2013).

In addition to the definitions, it is clear that there is an effort by researchers to delineate innovation types in the public sector, even as a way to facilitate the understanding and identification of innovations, namely: service innovation (HALVORSEN *et al.*, 2005; WINDRUM; KOCH, 2008; BLOCH, 2011; HUGHES; MOORE; KATARIA, 2011; WU *et al.*, 2013), service delivery innovation (WINDRUM; KOCH, 2008), process innovation (HALVORSEN *et al.*, 2005; BLOCH, 2011; HUGHES;

MOORE; KATARIA, 2011; WU *et al.*, 2013), organizational innovation (HALVORSEN *et al.*, 2005; BEKKERS; VAN DUIVENBODEN; THAENS, 2006; WINDRUM; KOCH, 2008; BLOCH, 2008; BLOCH, 2011; HUGHES; MOORE; KATARIA, 2011), communication innovation (HUGHES; MOORE; KATARIA, 2011; BLOCH, 2011), conceptual innovation, institutional (or systemic) innovation (HALVORSEN *et al.*, 2005; BEKKERS; VAN DUIVENBODEN; THAENS, 2006; WINDRUM; KOCH, 2008), radical changes in rationality (HALVORSEN *et al.*, 2005), democratic innovation (AUDIT COMMISSION, 2007), strategic innovation (AUDIT COMMISSION, 2007; HUGHES; MOORE; KATARIA, 2011), political innovation (WINDRUM; KOCH, 2008), collaborative innovation, and governance innovation (WU *et al.*, 2013).

The innovation types can occur incrementally, when it implies a novelty that significantly improves something or some existing practice in the organization, or radically, which represents something totally new, thus being an unprecedented practice in the organization (CAVALCANTE; CUNHA, 2017; APSII, 2011).

Regarding the innovation process, this involves the development and implementation of new ideas within an institutional context. Thus, the innovation process in the public sector is related to the following activities: accessing new ideas, selecting and developing the ideas, implementing the innovation(s), and disseminating the innovation(s) (ISIDRO-FILHO, 2017; KATTEL *et al.*, 2015; HUGHES; MOORE; KATARIA, 2011; APSII, 2011). It should be noted that the innovation process can start both by a top-down or a bottom-up approach in an employee-based 'bricolage' perspective (AAS; JENTOFT; VASSTROM, 2016), driven by everyday challenges, ideas, and initiatives, seeking continuous and incremental improvement (CISNEROS, 2022).

The Brazilian and foreign literatures show that the public administration has made efforts to innovate in its organizational scope so as not to be just supporting innovation for other economic agents, innovating both in the services provided and in the internal operating procedures (CISNEROS, 2022). In some sectors, innovative activities are predominant, such as in the health area (CAVALCANTE; CUNHA, 2017; ISIDRO-FILHO, 2017; KLUMB; HOFFMANN, 2016; SOUSA *et al.*, 2015).

When considering innovation in the public health sector, it is necessary to understand that it involves the introduction of a new concept, idea, service, product and/or productive, administrative or organizational process that aims to improve treatment, diagnosis, education, dissemination, prevention, and research, producing significant benefits for individuals, groups or the community in general, having long-term goals regarding the improvement of quality, safety,

results, efficiency, and costs for the health unit that adopts it (COSTA, 2016; OMACHONU; EINSRUCH, 2010).

Innovations in public health can generate results in terms of improvement in service evolution and delivery, efficiency, organizational performance and management, service quality, user satisfaction, in the working conditions of employees, in the organizational climate, in the social and environmental impacts, in trust and legitimacy, and in image and institutional relationships (ISIDRO-FILHO, 2017; KATTEL *et al.*, 2015; BLOCH, 2011; APSII, 2011). These results are summarized in this research as being of social, management or assistance character, in accordance with Fleury (2014).

Methodological Procedures

This study used the methodological strategy of a single case study in a Brazilian city selected based on the following criteria: 1) having a population above 100,000 inhabitants; 2) present FHS coverage greater than 50%; and 3) have at least one successful innovative experience disclosed in the catalog of the exhibition *Mostra Brasil aqui tem SUS* between the years 2015 to 2019.

The city chosen was Campina Grande. Located in the Northeast region of the country, it is the second largest city in the state of Paraíba, with approximately 412,000 inhabitants (IBGE, 2020) and 90.6% of its population covered by the FHS (E-GESTORAB, 2019). The quality of the performance of FHS professionals in the municipality was highlighted in 1999, when the city was granted the award *Prêmio Saúde Brasil* from the exhibition *I Mostra Nacional de Produção da Saúde da Família*, and in 2008, at the *III Mostra Nacional de Produção da Saúde da Família* (CARNEIRO, 2011). Recently, between 2015 and 2017, the FHS of Campina Grande also had successful innovative experiences published in the catalog of the exhibition *Mostra Brasil aqui tem SUS* (CONASEMS, 2019).

Data were collected between May and December 2019, using the following primary sources: semi-structured face-to-face interviews with managers and health professionals from the FHS in Campina Grande; face-to-face focus group (KINALSKI *et al.*, 2017) carried out with health professionals who work in the FHS team and who have participated or are participating in innovative processes; and systematic direct observation (MERRIAM, 2009), carried out on the days when the interviews and focus groups occurred.

For the interviews and focus groups, specific scripts were adopted, each contemplating 29 open questions. The scripts of the interviews and focus groups included questions organized in four stages, in order to contemplate the central themes of this research. The first stage concerned the characterization of the context in which the Family Health Strategy operates, in addition to investigating which innovations were undertaken in the FHS, as well as the way in which the innovation process occurs. The second stage included questions with the aim of investigating the determinants of innovation in the Family Health Strategy, seeking to understand the factors that pressure the existence of innovation, those that influence the organization's ability to innovate and those that pose difficulties for the development and implementation of the innovation in the FHS. The third stage included identifying the role of the actors involved in the innovation dynamics in the Family Health Strategy, as well as the investigation of the relationship between these actors. The fourth stage finally understood the understanding of the results of innovation in the FHS.

The development of the focus group occurred from following the following phases: 1) Planning, when the composition of the focus group was established, in addition to the elaboration of the script that guided the interview in the group session; 2) Recruitment, from which the research and its objectives were personally presented, on a date previously scheduled by the District Managers, to potential participants to integrate the focus group, who, agreeing to participate, indicated the location (the Basic Health Unit where they work) and preferred time for performance; 3) Group session, stage in which the two focus group meetings took place, developed from the following key moments: opening of the session, introduction of the participants to each other, clarifications about the dynamics of participatory discussion, establishment of the setting (ethical aspects linked to the research and the interactive process, debate of the questions contained in the script, synthesis of the discussions and closing of the session (KINALSKI *et al.*, 2017).

The script for the observations included 11 items, contemplating the verification of the interaction of the interviewee with the other employees and with the users; distribution of people in sectors; of the social, economic, political and cultural context in which the Basic Health Unit is located; how information relating to health services is made available to users; what are the characteristics of the service environment for users; how the provision of health services is organized; and how health services are managed.

All data collection scripts were previously evaluated by a doctor of public health and subsequently a pilot study was carried out in a Family Health Unit in the city of João Pessoa, capital of the state of Paraíba. Secondary sources were also used through documents provided by the research participants, besides other documents collected electronically by indication from the study subjects regarding the innovations carried out by the FHS of Campina Grande.

The research subjects were key informants from the Municipal Secretary of Health (Directorate and Advisory Office for Health Care), District Health Managers (of the nine district health managers in the municipality, six agreed to respond to the survey, through interviews), in addition to of health professionals from FHS teams in the selected municipality (Doctors, Nurses, Dentist, Oral Health Assistant and Community Health Agents), indicated by the managers, totaling 23 people participating in the research, totaling 23 people, with nine interviews and two focus groups having been carried out. The selected managers and professionals were invited, after a letter of consent from the Municipal Department of Health of Campina Grande was issued, to voluntarily participate in the study by submitting and signing the Free and Informed Consent Form (FICF).

Invitations for interviews and focus groups were ended when it was noticed that the answers began to repeat and did not add new elements and that the data collected proved to be adequate to the research objectives, reaching theoretical saturation (O' REILLY; PARKER, 2012).

The content analysis technique was used for data analysis. Content analysis was used following the steps of pre-analysis (preparation and reading of the material); exploration of the material (coding and categorization); and treatment of results and interpretations (inference and interpretation) (BARDIN, 2011). The categories of analysis were defined a priori and included, namely: innovative actions; innovation types; innovation intensity; and innovation process. Regarding the innovation results, the categories involved, namely: social, assistance, and management aspects.

To assist in the application of the method, the software ATLAS.ti version 8 was used, which enables identifying the connections, codes, and categories existing in the transcripts of the interviews and focus groups, favoring comparisons for a better treatment of the results (BANDEIRA-DE- MELLO, 2006).

available by the Ministry of Health, the history of consultations and specialized examinations of the user is recorded.

Another innovation mentioned that can be characterized as organizational, process or service innovation (WINDRUM; KOCH, 2008) was the **Advanced Access**. According to the Manager of the Sanitary District V, this method of work inverts the logic of the provision of health services in the FHS to the users as follows: before, the appointments were scheduled for future dates, which caused delays and even absence of attendance; now, with few exceptions, the service schedule remains open and the hours are filled according to the daily demand, as explained by the Health District Manager IX.

It was possible to observe organizational and collaborative innovations (WU *et al.*, 2013) specifically established by some BHUs in the municipality. One of them was the creation of the **Family Health Unit (FHU Professora Odete Leandro)** on the campus of the Paraíba State University (UEPB) in the municipality, which aims to serve, in partnership with the teaching institution, residents of an area previously uncovered by the FHS of the city, as reported by the Director of Health Care.

The installation of this FHU provided an innovative management model for the FHS, as it includes health professionals from the municipality and from the university aforementioned, as well as students doing internships at the unit. In the words of the advisor of the Department of Health: "It has been a fantastic experience between the teaching institution/management/health professionals. A dialogue between different types of knowledge."

The **HiperDia**, an organizational and process innovation identified at the BHU Ronaldo Cunha Lima, is a program by the Ministry of Health whose objective is to register users through a national computerized system and carry out the risk classification of users with arterial hypertension and diabetes mellitus, based on clinical and laboratory data, in order to facilitate the prioritization of care for users who have more cardiovascular risks.

It should be clarified that although this program is already being used in other BHUs in the municipality, it was not yet carried out at the BHU Ronaldo Cunha Lima, thus being an innovation for this health unit. The **Saúde na Hora** is an innovation in the provision of services (WINDRUM and KOCH, 2008), identified at the BHU Adriana Bezerra Carvalho, aimed at expanding service hours in health units, which now operate without lunch breaks, at night, and also on weekends.

Other innovations, categorized as service innovation, are those offered by the BHU Hindemburgo Nunes Figueiredo and the BHU of Sanitary Districts VII and VIII, namely: **Talking Circle with Mentally Ill Patients** and **Queens of the Forest**. The purpose of these innovations is to enable users who need this type of service to feel more comfortable in the mental health treatment process by sharing experiences and knowledge between users and health professionals through workshops and group techniques and dynamics, with the difference that the second innovation, Queens of the Forest, only serves women.

There are also innovations of service (HALVORSEN *et al.*, 2005) or service provision in the Sanitary Districts VII and VIII, such as the **Therapeutic Workshop for Caregivers** and **Integrative Practices**. The first innovative action involves training divided into nine modules, each having a different approach to each class of health professionals that comprise the FHS, being focused on meeting the health service needs of users residing in the rural area of Campina Grande. The second innovation represents an integral care approach to the population through various therapeutic resources carried out by psychologists with the support of the community health agents (CHAs) and includes, namely: community therapy, participatory planning, circular dances, storytelling, and psychomotricity.

In the same Districts, a communication innovation (HUGHES, MOORE, KATARIA, 2011; BLOCH, 2011) called **Action in the Square to Fight the *Aedes Aegypti* Mosquito** was evidenced. As these locations have a high incidence of *Aedes Aegypti* foci, a partnership with public and private schools in the area together with the Health Surveillance and the FHS teams was formed, so that students and teachers could take posters displayed for the population with indications on how to fight *Aedes Aegypti* to the squares.

In the BHUs of Sanitary Districts VI and IX, the service innovation **Replacement of the Probe** was identified, being carried out by the nurses of the health units and allowing the user to be promptly attended without having to go to a hospital to receive this service.

At the BHU Maria de Lourdes Leôncio, it was possible to see the service innovation called **1000 Days**, which is a project that involves the monitoring of mother and baby by BHU health professionals from gestation to the first two years of the child's birth. In the same BHU, the execution of the **Project for the Elderly** was evidenced, which refers to the prior scheduling of meetings with the elderly from the locality for discussion and delivery of a booklet with health

guidelines, having the participation of the unit's health professionals, as well as external guests; and the **Baby Vaccination Booklet**, a project to guide mothers in order to inform which vaccines should be taken by the baby and what are their purpose, besides indicating which diseases are prevalent in this age group. The latter two innovations can be categorized as communication innovations.

Table 1, below, presents a summary of the innovations and respective types of innovation that have been implemented in the scope of the Family Health Strategy in the municipality of Campina Grande.

Table 1 - Innovations in the Campina Grande FHS

INNOVATIONS	TYPE(S) OF INNOVATION	ABRANGENCIA
Adoption and use of the Electronic Citizen Record (ECR)	Process Innovation and Organizational Innovation	All the BHUs in the city
National Regulation System (SISREG)	Process Innovation	All the BHUs in the city
Advanced Access	Organizational innovation, Process Innovation and Service Delivery Innovation	All the BHUs in the city
Creation of a Family Health Unit on the UEPB	Organizational Innovation and Collaborative Innovation	FHU Professora Odete Leandro
HiperDia	Process Innovation and Organizational Innovation	BHU Ronaldo Cunha Lima
Saúde na Hora	Service Delivery Innovation	BHU Adriana Bezerra Carvalho
Talking Circle with Mentally Ill Patients	Service Delivery Innovation	BHU Hindemburgo Nunes Figueiredo
Project for the Elderly	Communication Innovation	BHU Maria de Lourdes Leôncio
Baby Vaccination Booklet	Communication Innovation	BHU Maria de Lourdes Leôncio
1000 Days	Service Delivery Innovation	BHU Maria de Lourdes Leôncio
Replacement of the Probe	Service Innovation	BHUs do Distritos Sanitários VI and IX (specifically in BHU Maria de Lourdes Leôncio)
Integrative Practices	Service Innovation and Service Delivery Innovation	Sanitary Districts VII and VIII and BHU Maria de Lourdes Leôncio
Therapeutic Workshop for Caregivers	Service Innovation and Service Delivery Innovation	Sanitary Districts VII and VIII

Action in the Square to Fight the <i>Aedes Aegypti</i> Mosquito	Communication Innovation	Sanitary Districts VII and VIII
Queens of the Forest (women's group on mental health)	Service delivery innovation	Sanitary Districts VII and VIII

Source: Elaborated by the authors (2023).

What characterizes all these actions as innovations for the FHS of Campina Grande is the fact that they break with the practices of the past, which is one of the characteristics that explains innovation in the public sector, as defined in this study and according to Cavalcante and Cunha (2017), Kattel *et al.* (2015), European Community (2013), and Osborne, Brown (2011), leading the BHUs to a new operating standard in terms of operation, management, process, and service to society. These are attributes of innovation in the public sector, leading to an impact of public value.

These innovations, according to Costa (2016) and Omachonu and Einspruch (2010), also correspond to the characteristics of innovation in public health regarding the introduction of a new or improved service aimed at gaining efficiency and quality in the production, organization, and delivery of health services, as well as improving treatment, diagnosis, education, dissemination, and prevention, producing significant benefits for individuals, groups or the community in general.

The identified innovations occur under different degrees of intensity. The ECR, Creation of a Family Health Unit on the UEPB Campus, Replacement of the Probe, Integrative Practices, and Therapeutic Workshop for Caregivers are innovative actions that have introduced something unprecedented in the FHS of Campina Grande, thus being characterized as radical innovations, according to Cavalcante and Cunha (2017) and APSII (2011). The SISREG, Advanced Access, *HiperDia*, *Saúde na Hora*, Talking Circle with Mentally Patients, Project for the Elderly, Baby Vaccination Booklet, 1000 Days, Action in the Square to Fight the *Aedes Aegypti* Mosquito, and Queens of the forest are innovative activities that have improved existing practices in the FHS of the municipality, being then considered incremental, according to the consideration of the degree of novelty explained by the aforementioned authors.

Regarding the innovation process in the FHS of Campina Grande, in accordance with the studies by Isidro-Filho (2017), Kattel *et al.* (2015), Hughes, Moore and Kataria (2011), and APSII (2011), it was found that it follows the following steps: accessing new ideas, selecting and developing ideas, implementing the innovation(s), and disseminating the innovation(s). The fact

that this is a systematic process of innovation is highlighted, as the FHS of the municipality seeks to continually innovate beyond the situations in which changes are required.

This means that the municipality's FHS is dedicated to a continuous and permanent process of innovation production, systematically, not only in times of crisis that require changes. This evidence is relevant because it addresses the understanding of Aas, Jentoft, and Vasstrom (2016) that in service organizations, such as the public service analyzed here, the innovation process can occur in an unsystematic way.

In addition to the findings of the aforementioned authors, the innovation process is marked by political and administrative autonomy for the FHS teams in their health units to develop and implement innovations. Thus, there is the occurrence of what Cisneros (2022) and Aas, Jentoft and Vasstrom (2016) call an employee-based 'bricolage' approach, since ideas and even the implementation of innovations can derive from a bottom-up movement, that is, driven by the daily challenges, ideas, and initiatives of frontline professionals, taking into account the specifics of the local needs of users.

Results of Innovations at the FHS of Campina Grande

With the adoption and use of the ECR, that brings results through a technology-based strategy, as Diclemente *et al.* (2019) explain, the following results were achieved in terms of management and assistance: 1) better integration of health services and optimization of the service flow; 2) improvement of expenses by reducing the acquisition and use of paper for preparing and maintaining the users' medical record, representing one of the reasons for the public sector to undertake efforts in favor of innovation, according to Cavalcante and Cunha (2017), Vries, Bekkers and Tummers (2016) and the European Community (2013); 3) improvement of the internal efficiency of management and productivity, in accordance with Omachonu and Einspruch (2010), streamlining the process of registration and service to users; 4) decreased risk of loss of information regarding the users and consultations; 5) easy access to information that enables the indication of the need for other innovations or corrections of existing innovations, as mentioned by Aas, Jentoft and Vasstrom (2016); and, 6) optimization of the reach of health services for the population, enabling a greater range of perception and attention to the population's needs, in agreement with Fleury (2014).

The manager of the Health District IX and the nurse of the BHU Hidemburgo Nunes de Figueiredo added that the expansion of users' access to health services is a benefit that extends to the adoption of **Advanced Access** and **Saúde na Hora**. Thus, with these innovations, there was an improvement both for managers and health professionals regarding the organization and availability of services, representing the achievement of results in management aspects, and for users, due to the facilitation of access to health and care services, contemplating results focused on assistance aspects, according to Fleury (2014).

In the three BHUs that were visited (Maria de Lourdes Leôncio, Ronaldo Cunha Lima, and Hidemburgo Nunes de Figueiredo) it was possible to notice through direct observation that the service flow was facilitated, so that users have their demands met according to the order of arrival, upon registration in the ECR.

Specifically regarding the **Saúde na Hora**, according to the manager of District V, besides providing health services in extended hours, it is also a way to motivate health professionals, as it gives them the opportunity to obtain a day off, which is something important given their high workload.

The **Saúde na Hora** added to the FHS of Campina Grande results linked both to management aspects, as it provides the engagement to better serve users, as well as assistance, since citizens can use the health services they need, as pointed out by Fleury (2014). Regarding the results obtained through the **Saúde na Hora**, the manager of the Sanitary District VI explained that there was: "Improved access to men's health. We are seeing a greater demand from men and women, as there are many women who work, and due to the issue of working at night, the different schedule offered by **Saúde na Hora** allow many women to have a way to be attended, improving the access indicators."

The adoption of the **SISREG** has facilitated both the work of health and care management professionals. These benefits that are linked to management aspects of the innovation result for allowing users to access the exams necessary for their demands, representing, in Fleury's view (2014), the scope of assistance aspects of the innovation result, as mentioned by the manager of Sanitary Districts VII, VIII, and FHU Professora Odete Leandro.

The **HiperDia** reaches the management aspects of the innovation result according to Fleury (2014), as according to the explanation by the Physician of the BHU Ronaldo Cunha Lima, obtained

through a focus group: “The more the patient is at risk, the more frequently this patient will be attended, both at home and at the health unit. [...] Everyone is attended, but we wanted to intensify (the service) for the one who will require the main demand.”

The **creation of the FHU Professora Odete Leandro on the UEPB Campus** in Campina Grande, according to the director of Health Care, expanded the users' access to health services in the municipality as one of its results, involving the assistance aspect of the innovation result, besides increasing the quality of service to users, which represents the management aspect of the innovation result, according to Fleury (2014). These results demonstrate the importance of innovation in public health, according to Isidro-Filho (2017), Kattel *et al.* (2015), Bloch (2011), and APSII (2011).

The **Talking Circle with Mentally Ill Patients** and **Queens of the Forest** provide a transformation in how mental health services are offered to the population. In the same perspective of changing how health services are provided, there are the **1000 Days** and **Therapeutic Workshop for Caregivers** innovations. Thus, the aforementioned innovations enable better acceptance and participation of users who need these services, which represents the achievement of results in terms of assistance aspects, besides ensuring that the health units are able to adequately meet their service goals, which characterizes results related to management aspects, as explained by Fleury (2014).

In the case of the **Therapeutic Workshop for Caregivers**, this innovation also provided learning and knowledge to the public of interest, an action that reflects the value of innovation in the public sector, according to Castro, Isidro-Filho and Menelau (2017) and European Commission (2013). In addition, this result is related to care aspects, according to what Fleury (2014) explains, as it provides means of professional improvement and subsequent use of the knowledge acquired in the provision of health services.

Specifically regarding the **1000 Days** innovation, its benefit is to offer a new way of providing health services to pregnant women and their babies until the end of the child's second year of life, an assistance aspect of the innovation result, according to Fleury (2014). In addition, it achieves results related to the social aspect of innovation, as indicated by Fleury (2014), by inserting a new way of providing relevant information to the population, in order to defend and ensure the rights to life and health of children and pregnant women.

In relation to the **Replacement of the Probe and Integrative Practices**, the results of both innovations are related to management aspects (better availability of health services) and assistance aspects (offer of new health services), providing adequate responses to the citizens' demands. The innovations of the **Project for the Elderly**, **Baby Vaccination Booklet**, and **Action in the Square to Fight the Mosquito Aedes Aegypti** demonstrate the reach of assistance (new mechanisms for organizing the provision of health actions and services) and social aspects (a different and improved way to make information on prevention and health services available to the population). Table 2 presents the summary of the results of the identified innovations.

Table 2 - Results of innovations in the FHS of Campina Grande

INNOVATION RESULTS		
MANAGEMENT ASPECTS	ASSISTANCE ASPECTS	SOCIAL ASPECTS
Improving the quality of health services, according to the perspective of health managers and professionals	Improved access to health services and better service to users	Provision of health information and guidance to the population
Improving management efficiency and productivity	Availability of new health services	
Stimulating the motivation of health professionals		
Better organization and availability of health services	New ways of providing and communicating health services	
Improving Spending		

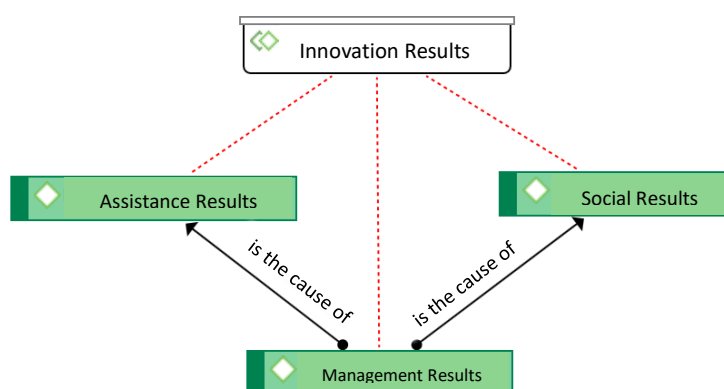
Source: Elaborated by the authors (2023).

These results represent the provision of what is considered as the value achieved by innovation in the public sector in terms of collective benefits for increasing the health of the population, as explained by Castro, Isidro-Filho and Menelau (2017) and the European Commission (2013). It is important to emphasize that these innovations, for being configured as preventive actions to avoid users becoming sick, contribute to reduce investments in public health in the medium and long term, considering that corrective actions are mostly more expensive than prevention.

It is also noteworthy that all the innovations found in the FHS of Campina Grande include results that are related both to assistance and social aspects and to management aspects. This

demonstrates that, although Fleury (2014) pointed out that the management aspects are the least developed in terms of innovation results within the SUS, there is an indication of their expressive presence in the analyzed case, demonstrating a tendency of the FHS to overcome the lack of administrative capacity to fulfill its duties. Figure 2, from ATLAS.ti, represents the relationship between the innovative results, showing that the managerial results support the achievement of welfare results and social results.

Figure 2 - Relationship between innovation results in the Campina Grande FHS



Source: Elaborated by the authors (2023).

Thus, it can be seen that the management renewal of public administration, including the FHS, which began with the NPM, has been intensified, although without neglecting the service of its assistance and social demands to the public interest, viewing the user of the public health system as a citizen and not as a client who purchases services from the State, proposals that are incorporated in the perspective of the New Public Service (NPS), according to Euclides and Silveira (2020), Denhardt and Catlaw (2017) and Santos and Selig (2014).

Regarding carrying out evaluations of the results obtained with the innovations undertaken, although meetings between the health professionals who comprise the FHS teams and the district and municipal management are common, when the planning of innovative actions occur, the participants of the research indicated that the a priori planning of the evaluation of the innovation results is not a frequent action, which goes against the indication by Aas, Jentoft and Vasstrom (2016) that a careful and detailed evaluation of the results of the innovation must be carried out.

Knowing whether or not innovation aggregates positive results in the FHS of Campina Grande, according to the nurse of the BHU Ronaldo Cunha Lima and the director of Health Care, depends more on the perception of health professionals and managers on how they view and understand changes that occurred through the innovations.

As highlighted by Aas, Jentoft and Vasstrom (2016), one way to analyze the effects of innovation, thus allowing its continuous and incremental improvement, is based on everyday perceptions. Thus, although the evaluation of the results of innovations is not an action planned in advance with the use of adequate management instruments for this purpose, health professionals and district management seek to be aware of the impacts arising from the implementation of innovations, leading these understandings to the discussions that are held in the meetings between the FHS teams and between the district and municipal management. These discussions are considered by Cisneros (2022) as a practice of interaction and information exchange necessary for the progress of innovations.

It is noteworthy that part of the understanding by health professionals and district managers on the results of innovation comes from user feedback, which is known when, on their initiative, there is the presentation of opinions and/or complaints, whether at the time of service, in contact with the CHAs, or through the ombudsman, as explained by the advisor of the Department of Health, by the CHAs at the BHU Ronaldo Cunha Lima, and by the manager of the Sanitary District VI. The CHAs of the BHU Ronaldo Cunha Lima, the manager of the Sanitary District IX, the manager of the Sanitary Districts VII, VIII, and FHU Professora Odete Leandro, and the Manager of the Sanitary District V explained that one of the feedbacks received concerns a decrease in complaints regarding the access to health and the service flow that in the BHUs, which is directly related to the implementation of the ECR, SISREG, Advanced Access, and Saúde na Hora innovations.

Therefore, in alignment with Aas, Jentoft and Vasstrom (2016), it appears that the perception of users regarding the benefits arising from the implementation of innovations is taken into account by health professionals and district and municipal health managers as a form of organizational learning. Although this process is not yet formalized, it is understood that it contributes greatly to favoring the necessary adjustments and the emergence of other innovations.

Conclusions

Evidence revealed that even amidst the predominantly political and economic adversities that the SUS faces, there are several examples of innovative actions that aim to improve the quality of organization, access, and service provision in the FHS for the population. This confirms the indication in literature that it is in the localities, where citizens' demands arise, that efforts are concentrated to offer new health services or new forms of provision and/or information on these services.

It was found that the innovation process takes place according to the following steps: access, selection and development of new ideas, and implementation and dissemination of innovations. Additionally, it was found that the teams enjoy a certain political and administrative autonomy in their health units. Through the leadership of nurses and authorization of district management, innovations are developed and implemented in a decentralized manner, which not only facilitates the achievement of positive results through the performance of the innovation, but also enables the emergence of more innovations.

Regarding the results achieved with innovative actions, the most significant presence of benefits related to management aspects is highlighted, which corroborates the results of studies that call attention to the fact that the focus of innovations in the scope of public health are currently focused on correction and/or improvement of management failures, being a vestige of the use of New Public Management.

However, taking into account specific attributes of the context, it was possible to see that public sector management is starting to follow new directions, including regarding innovations, such as the preservation of democracy and the appreciation of people as citizens who should have their needs met regarding collective rather than individual interests, which are characteristics present in the conception of the New Public Service (NPS).

This research, besides being one of the few studies dedicated to understanding how innovation happens in the FHS, also provided answers to the following gaps indicated in the relevant literature: the lack of a comprehensive systematic view of practical evidence on innovation in the public sector; absence of a clear theoretical basis in studies on innovation in this sector, with the original contribution of this research being the empirical analysis of the attributes of the NPS in the

context investigated; and scarcity of studies dedicated to verifying the results of implemented innovations.

From this perspective, the findings present an academic contribution to the extent that they advance the understanding of the effects of innovations on the services offered by the FHS and the adoption of a theoretical basis more adherent to the theme of innovation in public services. In addition, it favors the clarification of the occurrence of innovative actions at the municipal level, which still lacks explanations, since the focus of studies with this theme usually falls on the federal level of government.

From a practical point of view, there is the possibility that the results of the study will provide a clearer understanding for the municipal health management of Campina Grande of what innovations in the FHS are and how they behave, in order to continuously improve the innovative processes and the results achieved, which may also be favorable for innovation management actions by other municipal health managers. And, from a social point of view, the indications for the managerial improvement of health innovations are beneficial for the direction of public policies that better meet society's needs.

As a suggestion for further research, the following question gives rise to further investigations: regarding the implemented innovations, what does it reveal, in institutional terms, that the most expressive results come from national policies by the Ministry of Health? It also indicates the use of the NPS perspective as a reference for analyzing the management of innovation in the public sector, including innovation in public health. It is also suggested that new studies should be dedicated to proposing management technologies with practical application in evaluating the results of innovations implemented in the FHS.

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