ABSTRACT

Objectives: to understand the work process dimensions related to innovative actions developed by nurses in Primary Health Care. Methods: qualitative, descriptive study, developed in Primary Health Care in a city in the Southern Region of Brazil. Seventy-six nurses, who worked in management and assistance, participated in this study through semi-structured interviews. After data processing by IRAMUTEQ software, the textual analysis occurred by descending hierarchical classification. Results: forty-two innovative actions, considered by the participants as new ways of working, were identified. There was a predominance of innovative actions related to the Management and Assist dimensions; we noticed the fragility of the actions to contemplate all the nurse's work process dimensions. Final Considerations: the predominance of innovative actions was related to users' assistance and better conditions in the teamwork process, besides highlighting the role of nurses in the perspective of a new way of working in health services. Descriptors: Knowledge Management; Primary Health Care; Nursing; Organizational Innovation; Role of the Nursing Professional.

RESUMO

Objetivos: apreender as dimensões do processo de trabalho relacionadas às ações inovadoras desenvolvidas por enfermeiras na Atenção Primária à Saúde. Métodos: estudo qualitativo, descritivo, desenvolvido na Atenção Primária à Saúde de um município do Sul do Brasil. Participaram 76 enfermeiras que atuavam na gestão e assistência, por meio de entrevista semiestruturada. A análise textual ocorreu após o processamento dos dados pelo software IRAMUTEQ, pela classificação hierárquica descendente. Resultados: identificaram-se 42 ações inovadoras, consideradas pelos participantes como novas formas de trabalho. Predominaram ações inovadoras relacionadas às dimensões Administrar e Assistir; notou-se fragilidade das ações para contemplarem todas as dimensões do processo de trabalho da enfermeira. Considerações Finais: o predomínio das ações inovadoras relacionou-se à assistência prestada aos usuários e às melhores condições no processo de trabalho em equipe, além de destacar o papel das enfermeiras na perspectiva de um novo modo de se trabalhar nos serviços de saúde. Descriptores: Gestão do Conhecimento; Atenção Primária à Saúde; Enfermagem; Inovação Organizacional; Papel do Profissional de Enfermagem.

RESUMEN

Objetivos: aprender dimensiones del proceso laboral relacionadas a acciones innovadoras desarrolladas por enfermeras en la Atención Primaria de Salud. Métodos: estudio cualitativo, descriptivo, desarrollado en la Atención Primaria de Salud de un municipio del Sur brasileño. Participaron 76 enfermeras que actuaban en la gestión y asistencia, por medio de entrevista semiestructurada. El análisis textual ocurrió tras el procesamiento de datos por software IRAMUTEQ, por clasificación jerárquica descendente. Resultados: identificaron 42 acciones innovadoras, consideradas por participantes como nuevas formas de trabajo. Predominaron acciones inovadoras relacionadas a las dimensiones Administrar y Asistir; notóse fragilidad de las acciones para contemplar todas las dimensiones del proceso laboral de la enfermera. Consideraciones Finales: el predominio de las acciones innovadoras se relacionó a asistencia prestada a usuarios y a mejores condiciones en el proceso laboral en equipo, además destacar el papel de las enfermeras en la perspectiva de un nuevo modo de trabajar en los servicios de salud. Descriptores: Gestión del Conocimiento; Atención Primaria de Salud; Enfermería; Inovación Organizacional; Papel del Profesional de Enfermería.

Innovative actions developed by nurses in primary health care

Ações inovadoras desenvolvidas por enfermeiras na Atenção Primária à Saúde

Acciones innovadoras desarrolladas por enfermeras en la Atención Primaria de Salud
INTRODUCTION

Nursing presents a vast field of jobs in several areas of knowledge and performance and can be classified into five dimensions: 1) Assist - aims at the care of individuals, family, and community, to promote, maintain and recover health; 2) Research - it evidences nursing knowledge, through scientific discoveries for new work models; 3) Management - coordinates the work process; 4) Teach - forms, perfects and empowers human resources, as well as guides individuals, family, and community and; 5) Political Participation - acts mainly in the conquest of better work conditions (1).

When reflecting on nurses’ actions in the five dimensions exercised, it is observed that many situations go unnoticed by the individuals receiving care and other health team professionals. It is verified that the nursing figure presents, in its daily professional life, marks highlighted by its historical trajectory, added to the difficulty of being characterized as a profession based on science (2).

Primary Health Care (PHC), in turn, opens space for nursing to remodel its professional image, as it allows the expansion of the nurse’s field of action through innovative actions, providing the development of professional practice based on their knowledge/know-how. This fact contributes to establishing new relationships with the community and the interprofessional team (3).

According to Greenhalgh et al. (4), innovation corresponds to a new set of behaviors, routines, and ways of working that aim to improve health, outcomes, management efficiency, cost-effectiveness, or user experience and that are implemented by planned and coordinated actions.

Therefore, innovative actions consist of planned changes that research, laws, and regulations can support (5).

The practice of innovative actions in nursing provides professional autonomy, considering that the nurse is qualified to exercise it, besides expanding the vision in health care management. Some authors warn about these professionals’ difficulty in assuming new responsibilities and an innovative character in their professional practice (5).

As a professional category, nursing has a great impact on health services. As team leaders, nurses are challenged to have a holistic and integral look at their users and nursing team. Also, their actions, research, analysis, and the application of management/care models must be disseminated since these are essential activities for the development of the profession (5).

The nurse in PHC performs many activities and, in turn, has cared as an object in the different dimensions of the work and nursing process (6). Thus, this professional has several opportunities to act as a transforming agent of health practices to respond to the model of care that is focused on comprehensive care, interventions, prevention, and health promotion (7). Nursing, inserted in PHC, in the public context, is challenged to improve service delivery (8). (9).

Through the recognition of the importance of nursing for the health system, the results of this study will motivate other nurses and services to identify their innovative actions in order to share their good experiences and knowledge as well as recognize the weaknesses and potentialities in the dimensions of activities, to strengthen their action in the various dimensions of the nursing work process.

In this context, considering the relevance of this theme in contemporary nursing, one question has been raised: Which dimensions of nurses’ work process performance are related to the innovative actions implemented in PHC?

OBJECTIVE

To understand the dimensions of the work process related to the innovative actions developed by PHC nurses.

METHODS

Ethical aspects

This study followed the ethical standards for research involving human beings, Resolution 466/2012, approved by the university institution’s Research Ethics Committee and the Municipal Health Secretariat (MHS). The participants’ consent was obtained through the Informed Consent Form.

Theoretical-methodological framework

The central results of each class were analyzed in light of the nursing work process dimensions: Management; Assist; Teach; Research; and Political Participation (1).

Type of study

This is a qualitative study. The Consolidated Criteria for Reporting Qualitative Research (COREQ) tool was used to guide the study’s construction and orient the methodology (10).

Study setting

A study was conducted in the PHC of a city in the metropolitan mesoregion of a state in the Southern Region of Brazil - a city subdivided into ten health districts (HD). Each HD has its own supervisor, including management, care, and health surveillance coordinations. Each PHC has 111 healthcare units, 404 assisting nurses, and 155 managers; out of these, 41 are district managers (10 supervisors, 10 attention care coordinators, 10 management coordinators, 10 health surveillance coordinators, and 1 epidemiology coordinator) and the directors of the three aforementioned coordinations.

Data source

The participants were 76 nurses, 30 of whom worked in the assistance dimension and 46 in the managerial dimension; these numbers were defined through judgment sampling, which involved the field researchers’ judgment in selecting participants who composed adequate sources of information for the research purposes (11). Initially, the selection was probabilistic, so that each HD had the representativeness in data collection according to the number of health units. In the second moment, the participants...
were selected by judgment based on the assumption that nurse managers participate in implementing innovative actions. The assistance nurses were specifically included by indication of local managers who identified them as key professionals in innovative action. We interviewed the nurses who showed interest in contacting us to schedule the interview, who had worked in assistance and/or management of the health units and HD in the last two years and remained in the job until the end of data collection. Nurses who, during the data collection period, were away from their activities due to vacation, bonus leave, or health treatment were excluded from the study.

Collection and organization of data

Data collection took place from February to November 2018 through semi-structured, audio-recorded interviews. The instrument consisted of information regarding the participants' profile and the statement on an action considered innovative that was implemented in their workplace. Information was also requested about the knowledge and information adopted, how this information was introduced, whether there was any external influence, and a description of the adaptation process and necessary adjustments.

The data gathering was conducted by a team composed of the main researcher and two researchers previously trained to administer the interview. The meetings were held at the participants' workplace after previously scheduled via an instant messaging application and managers' e-mail, presenting information on the research objectives and scheduling data collection operationalization. The duration of the interviews ranged from 10 to 40 minutes, and the ethical aspects of coding and confidentiality of the participants were respected.

For data processing, the interviews were transcribed, and the corpus was organized. Each interview was coded with three variables: interview number, job specification (if it was a caregiver, manager in the health unit, or the HD), and the HD to which it belonged.

After transcribing the 76 interviews and formatting the corpus, we processed the data for further textual analysis. To support the qualitative analysis, the data processing was done using the textual analysis software IRAMUTEQ (Interface de R pour les Analyses Multidimensionnelles de Textes et de Questionnaires)\(^{(14)}\).

Based on the corpus, text segments (TS) were sized. They are approximately three lines long and are considered the main textual analysis unit. The TS presented in each class make it possible to obtain statistically significant words, which allow the statistical analysis of the data\(^{(14)}\).

Data analysis

For the analysis, it was used the descending hierarchical classification (DHC). After sizing the TS, which were defined in function of the vocabularies similar to each other, employing several chi-square tests, the corpus was divided into classes. Then, the software organized the data in a graphic representation, which showed the relation of the classes according to the DHC dendrogram (Figure 1).

It was chosen to select in the DHC the words according to the highest frequency, considering that these were more significant for the analysis. The TS was read exhaustively in order to understand their meaning. For the presentation of the results, the TS that best represented the subject was selected.

RESULTS

Of the 76 nurses interviewed, 46 worked in management and 30 in assistance. Of the managerial nurses, 89% (n = 41) were female, and of the assistance nurses, 96.6% (n = 29). Age range: 73.6% (n = 56) were between 31 and 50 years old. Higher professional qualification: specializations proved to be the most present format among the participants, 81.5% (n = 62). Master's degrees accounted for 10.5% (n = 8); and PhDs, only 2% (n = 1). Time working as a manager at MHS the median was 5 years. Length of time working in healthcare assistance during their professional career: the median was 15 years.

The processing of the data by the IRAMUTEQ software took three minutes and two seconds. The 76 processed texts resulted in 3,232 TS, of which 2,595 (80.29%) were used and generated three classes.

For textual analysis and presentation of the classes referring to the innovative actions implemented in PHC services, the CHD created a classes' dendrogram. The corpus was divided into two sub-corpus; the sub-corpus of Class 1 was separated from the rest of the material, concentrating 41% of similar TS; this, in turn, generated another sub-corpus, which originated Class 2, which concentrates 37.4% of similar TS; and Class 3, 21.3%. (Figure 1).

Class 1 showed the highest number of TS and revealed that the innovative actions implemented in the HU are related to the Management and Assist dimensions. They showed actions aimed at reorganizing the flow of care, especially the reorganization of the professionals' schedule.

The management of the HU schedule this year was based on the latest proposal from the MHS, which was not to have a line at the HU door, not to have a line waiting at dawn, in the morning [...] so that the set-up of the schedules could dimension the time in which users could wait for an appointment and did not need to come in the early morning to make this appointment. (Assistant 4)

In Class 2, called “Nurses' protagonism to involve the team and population in the innovative action,” the TS highlighted...
the process of implementing innovative actions and involving the team. Furthermore, this class showed how nurses share information and knowledge regarding the innovative actions carried out, concerning the Teaching dimension, according to the following statements:

*Look, we even had some meetings with another HU, but I think the influence was the other way around: we influenced them to start, they had our influence [...].* (Assistant 29)

*The team bought the idea [to implement the innovative activity], the nurses sat together to build that (new model of care, based on the rescue of the PHC professionals), how we were going to do it, what we were going to complain about.* (HU Manager 6)

*When we brought one from another HU (the idea about the implementation of the innovative activity “Health education group for patients with diabetes and hypertension”), which has already worked, I said we can do it, and I think that was great, this exchange of experience for the team.* (HU Manager 22)

Class 3, “The search for knowledge in the application of innovative action,” according to Figure 2, consists of describing the search and usage of knowledge to implement the innovative action. That included the territorial survey of reality’s needs and knowledge about the Manage dimension.

We analyzed the dimensioning [of personnel], we saw the installed capacity of each HU, how the services were distributed within their HU. (HU Manager 6)

We started from the idea that scouting the territory, and a more accurate situational diagnosis of all the Health Units that are part of the HD was the starting point to begin discussions... you cannot implement any technology. (HU Manager 18)

The speeches reveal the search for technical and managerial knowledge and the use of professional experience accumulated in work, both in assistance and management.

As for the innovative actions, 42 were reported. Sixteen were related to the Management dimension; 15, Assisting; and 11, Teaching. The dimensions Political Participation, and Research were not evidenced. (Figure 2).

It is noteworthy that the innovative actions reported in this study were considered the new ways of working, which were adapted and implemented in nurses’ daily lives according to their context.

**DISCUSSION**

The data from this study reveal which dimensions of the nursing work process are contemplated in implementing actions considered innovative by PHC nurses. There was an emphasis on actions related to the dimensions of Assisting, Managing, and Teaching; however, innovative actions focused on Researching and Political Participation were not identified, although they present several opportunities to be exercised in PHC services.

The predominance of women in nursing is confirmed by a survey conducted by the Federal Council of Nursing and the Oswaldo Cruz Foundation, according to which 84.6% of Brazilian nurses are women. This number is also justified by the

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**Figure 2 - Innovative actions reported by nurses according to the dimensions of the nursing process**

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Oliveira IB, Peres AM, Martins MM, Bernardino E, Haddad MCF, Lowen IMV.
Nightingalean model, historically marked in Brazil by the profession's feminization\(^{(17)}\).

It is observed that the innovative actions reported, implemented in health units aim to improve the work process, direct care to the user, and working conditions for the health team. These data confirm the role of nurses, considered a key player in the advancement of PHC\(^{(18)}\).

In this context, we note the importance of nurses' participation in innovative processes for their success since this category presents a leadership that optimizes and gives opportunities to the implementation of pragmatic solutions to the needs of the service and health and the challenges met\(^{(19)}\).

Among the various innovative actions identified and classified according to the dimensions of the nurse's performance, there was a predominance of the Management, Assist and Teach dimensions, which corroborates the results of the study by Siqueira et al.\(^{(20)}\), in which the presence of these dimensions was identified in the work of PHC nurses.

From this perspective, the Management dimension was demonstrated in Class 1, which addressed the workflow's reorganization. The actions focused on this scope are justified due to the high demand in the health units of the municipality under this study, evidenced by long lines in specific periods to schedule a medical appointment.

Performing actions that reorganize the work process related to agenda management provides better access to users\(^{(21)}\) and allows nurses to plan their practice reflectively, i.e., detaching their practice from actions based on empirical knowledge\(^{(22)}\). Thus, the quality of care and service provision in PHC depends not only on professional practice and experience but also on effective organizational processes\(^{(23)}\).

The literature points out that activities encompassed in the Management dimension are performed by nurses even when there is a manager in the health units\(^{(23)}\). Barreto and Souza\(^{(16)}\) justify that most of the activities done in PHC, especially by managers, are directed to reorganizing the work process, actions that stood out in this dimension.

Actions focused on innovation in health services are of great relevance. However, they should not be limited to the management areas but should encompass all dimensions of nursing care practice, to strengthen the skills and knowledge of these professionals\(^{(24)}\).

The protagonism of nurses in involving the team and the population in the implementation of innovative actions related to Class 2 demonstrates, in addition to their strategic vision, the adherence of users and team to the proposal. This approach of the users to the health unit facilitates contact and more horizontal relations, as well as helps the users to know about the work done in this service, in which they observe the professional role of each team member, providing visibility to professionals, especially nurses, active participants in the innovative actions performed.

The involvement of the community and the health councils contributes to the knowledge of the reality of the health unit, which adds to the planning of actions that meet the needs of the service and the population, improving its resoluteness and responsiveness\(^{(20)}\). Moreover, it helps to improve access to health care, increase the quality of care, and reduce costs\(^{(29)}\).

The data indicate that the nurses shared experiences and knowledge related to innovative action. This practice occurred among the health units' team and other teams from different health units, which positively influenced PHC services.

The literature highlights the value of articulating health services actions since it is a relevant factor for developing local activity\(^{(17)}\). The sharing of information favors the creation of learning communities, reinforcing the improvement of the practice\(^{(28)}\).

Class 3, related to the search for knowledge in the application of innovative action, showed that a diagnosis was made before implementing this action. Based on the territory's situational diagnosis, the professional or team in charge starts to analyze the context. The problems and needs are listed, with the perspective of drawing up an action plan to solve them. This is a way indicated by the literature for the manager or management team to reflect on the necessary actions in the service to improve the work process and the quality of health offered to the population\(^{(29)}\).

In PHC, this practice is known as "situational diagnosis" and is considered an essential step for action planning.

The search and appropriation of knowledge result in the autonomy of nurses' actions, as well as respect and trust among the other professionals that are part of the team, and this transmits aspects that value the profession\(^{(30)}\).

The Assist dimension, which has care as its object\(^{(1)}\), showed through the innovative actions that some managerial activities were also related to user's assistance. This finding corroborates a national study\(^{(31)}\), which highlights the close relationship between these dimensions in the performance of PHC nurses, in which the practice of their managerial activities is linked to the management of care and assistance.

Currently, the literature points to the strengthening of the Assist dimension, since in recent years, in the Region of the Americas, nursing has expanded its interest to advanced practices in its work process. In turn, nurses act to "improve the access and quality of health care," which favors the expansion of their role and the visibility of their career by presenting a differentiated service in PHC\(^{(18)}\).

This dimension's relationship with advanced practices stood out due to the nurses' innovative actions aimed at improving access, user care, and expanding their role - actions that contribute to the prominence of the profession in health services\(^{(18)}\).

The Pan American Health Organization\(^{(12)}\) defends the importance of the nurse's role as central in PHC services, aiming to assist and care directly to the user. However, it highlights the need to interweave the Assistance dimension with the Research dimension so that the latter is understood and experienced by nurses as a structuring portion of their professional practice\(^{(12)}\). In some circumstances, the knowledge valued in professional training does not become effective in practice, being restricted to knowledge of only theoretical consumption\(^{(30)}\).

A national study linked the limitation in developing the Research dimension to a professional profile with a low capacity for "innovation, creativity, and resolution power"\(^{(30)}\). Thus, this dimension's importance is the foundation of innovative actions within the health service and as a basis for professional conduct can be perceived. Moreover, it is emphasized the need for: investment in the scope of this dimension concerning new.
ways of demonstrating the impact of these innovative actions on a large scale\cite{15,33}; of trained personnel, planning, and support of leadership\cite{2}.

In the Teaching dimension, its influence was observed in health education actions, and continuing education in health units. The literature shows that most of the educational initiatives carried out in the services are requested by managers and are often specific and technical. Such practices are also important for the development of the work; however, they are fragile because health transcends into social development and health policies\cite{34}.

When professionals act in the Teaching dimension, intending to employ Continuing Education’s managerial competence, there is impulse and influence on the organization’s growth and transformation and professional practices. However, for it to be effective, the leader and the team members’ improvement is essential, considering that, in nursing, the work is structured collectively\cite{39}.

When the innovative action leader uses this competence in the service in the way it is conceptualized, democratic participation is inferred, that is, greater involvement and interest from the team because one knowledge does not override the other. These professionals, in turn, have the opportunity to reflect on their practice and gain an appreciation of their previous knowledge.

As for the Political Participation dimension, the results show that this did not present any innovative activity reported by the nurses. It is noteworthy that, in PHC, nurses have numerous opportunities to exercise this dimension, since, to perform their function in service, it is recommended to “participate in the Local Health Council, the Local Health Conference, negotiate with other entities such as the Guardianship Council, Schools, Day Care Centers, Social Assistance Center”\cite{31}.

Thus, in a national study\cite{36}, the authors show the need for these professionals to develop, implement, and execute public policies, emphasizing improving working conditions, access, and well-being of the population. The ability of the nurse to act as a sociopolitical individual involves a multiplicity of knowledge that contributes to the consolidation of the profession.

Historically, these professionals have a certain fragility in strengthening their position, especially in the political arena. The Nursing Now campaign was established to give strength to these aspects of the profession\cite{37}. The recognition of the practices performed by nurses in PHC is essential since, in addition to valuing the profession and its knowledge/doing, the practices performed to qualify the assistance, considered essential in PHC, which is the gateway to the Brazilian health system\cite{38}.

Thus, as observed in the reported innovative actions, nurses engaged in health actions and teamwork, which need to be (re)known and disseminated to the community and other local leaders, implement the dimension of Political Participation, and ensure the visibility of the class. Therefore, among the predominant dimensions, there is a dichotomy between assistance and administration/management. This is inferred due to the work’s fragmentation in direct and indirect care. In this context, for there to be an efficient articulation between these dimensions, it becomes necessary for nurses to develop specific competences\cite{38}.

The practice of creating, developing, and implementing innovative actions reflects positively on the services performed by nurses. The document Triple Impact of Nursing highlights the need to develop efficient methods to share them so that non-nurse leaders and policymakers are also aware of them in order to highlight the real impact of nursing services\cite{26}.

This fact leads to the understanding and appreciation of their professional identity by other categories and the achievement of their full potential in service. The need for recognition by other non-nurse leaders is in the category’s opportunity to get support to implement necessary changes in services and in their work process, because, many times, nurses do not have the governability to implement specific changes, as well as they are not recognized as the agent of change\cite{26}.

There should be a reinforcement of the value of recognition and support for this professional’s actions because when the nurse has adequate support, the idea of innovation is encouraged, and there is a greater probability of transforming the reality of the work process and the care offered\cite{24}. Thus, there is a need for organizations (public, private, educational) and those responsible for policy-making and decision-making to mobilize efforts in order to promote the strength of nursing work, exploring its full potential\cite{18}.

Thus, it is essential to provide institutional environments that support and recognize initiatives carried out by nurses in health services, providing these professionals with working spaces and conditions to promote the visibility of the work performed by this category. Therefore, this practice can increase professional satisfaction and the institution’s integration with the worker.

**Study limitations**

This study’s limitation is the restriction of the analysis of the dimensions of nurses’ performance based only on the reported innovative actions. The study should seek other sources of data and innovative actions to broaden the analysis of the dimensions of action, for example, the competencies mobilized by nurses in PHC services to develop these actions or the institutional orientation towards innovation.

However, the results glimpse a range of possibilities and reflections aiming at better nurse practices and (re)knowledge of their actions and the appreciation of their work in PHC, since in professional practice, as demonstrated in the Triple Impact of Nursing\cite{26}, many of their actions go unnoticed by other non-nurse leaders.

**Contributions to the field of Nursing**

Considering the current reality in which innovation contributes to constant transformations in PHC, this study demonstrated nurses’ engagement in acting in different dimensions related to the profession’s know-how. It is evident how much nurses’ contribution to health care can be maximized with appropriate strategies because by creating and implementing innovative nursing actions in their context, there is an achievement of favorable results in their work process.

Besides, this study contributes to understanding the extent of the nurse’s work in PHC, considering the dimensions studied. However, it is noticeable that the profession advances in its
quality process but presents gaps in actions aimed at the dimensions Political Participation and Research. It highlights the need to provide spaces for these professionals to expand their network of relationships and make their actions visible. However, to fill these spaces, the nurses’ preparation to occupy and expand them is questionable. This reflection denotes the relevance of training’s provocative role so that future professionals innovate supported by updated knowledge, record, and disseminate scientific evidence. And, in the face of their work dimensions, they know how to highlight their competencies and socialize their approaches, besides supporting the development of better results in other health services.

FINAL CONSIDERATIONS

Through the implementation of innovative actions, this study demonstrated the unique contribution of nurses and made it possible to observe their role in a new way of working within the health service. We highlight the need to awaken in nurses the importance of expanding innovative actions to Political Participation and Research dimensions, which we identified as weak in this research.

However, these professionals have potential regarding the development of the work process, emphasizing reorganizing services and strengthening the involvement of professionals and the population to expand and qualify the PHC, besides valuing the knowledge/doing of this profession. That happens because the innovative actions reported aim to overcome the medical-centered model, focusing on integrity and quality of care to users and the health team. Such conditions are considered inherent to the work process, whether in service management or care management.

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