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Electronic Citizen Record: An Instrument for Nursing Care

Prontuário Eletrônico do Cidadão: Instrumento Para o Cuidado de Enfermagem

Registro Electrónico del Ciudadano: Instrumento Para el Cuidado de Enfermería

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ABSTRACT

Objective: The study's purpose has been to analyze the nurses' viewpoint regarding both implementation and use of the Electronic Citizen Record (ECR) in nursing care. **Methods:** It is a descriptive research with a qualitative approach that was carried out with 11 nurses from the primary health care service. **Results:** The following three categories appeared: The ECR from the primary care nurses' viewpoint; Implementation of the ECR in the basic health units; Contributions and challenges by using the ECR for nursing care. It was identified that the ECR is a tool that can contribute to the improvement of basic health units functioning, as well as, to the nursing care qualification. **Conclusion:** The ECR collaborates in the nurses' work processes by assisting, administering and researching. In order to make sure the ECR functioning in basic health units, it is necessary to implement support and maintenance of the logical network and internet; to promote training for health professionals using data processing, and also organizing the permanent education activity.

Descriptors: Electronic Health Record, Nursing Records, Primary Health Care.

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RESUMO

Objetivo: Analisar a percepção dos enfermeiros sobre a implantação e o uso do Prontuário Eletrônico do Cidadão (PEC) no cuidado de enfermagem.

Método: Pesquisa de abordagem qualitativa realizada com 11 enfermeiros da Atenção Básica. **Resultados:** Emergiram três categoriais: O Prontuário Eletrônico do Cidadão sob a ótica dos enfermeiros da Atenção Básica (AB); A Implantação do Prontuário Eletrônico do Cidadão nas Unidades de Atenção Básica (UBS); Contribuições e desafios na utilização do PEC para o cuidado de enfermagem. Identificou-se que PEC é uma ferramenta que pode contribuir para a melhoria do funcionamento das UBS e para a qualificação do cuidado de enfermagem. **Conclusão:** O PEC colabora nos processos de trabalho do enfermeiro no assistir, administrar e pesquisar. Para funcionamento do PEC nas UBS é preciso implementar suporte e manutenção da rede lógica e internet; capacitação dos profissionais no uso da informática e organização de educação permanente.

Descritores: Registro Eletrônico de Saúde, Registros de Enfermagem, Atenção Básica à Saúde.

RESUMEN

Objetivo: Analizar la percepción de los enfermeros sobre la implantación y el uso del registro electrónico del ciudadano (REC) en la atención de enfermería. **Método:** Investigación de enfoque cualitativo realizada con 11 enfermeras. **Resultados:** Surgieron tres categorías: REC bajo la percepción de los enfermeros de Atención Primaria de Salud; implantación del REC en las Unidades de Atención Primaria (UNAPS); contribuciones y desafíos en la utilización del REC en la atención de enfermería. Se identificó que REC es una herramienta que podrá contribuir para la mejora del funcionamiento de las UNAPS y para la cualificación de la atención de enfermería. **Conclusión:** El REC colabora en los procesos de trabajo del enfermero en el asistir, administrar e investigar. Para el funcionamiento del REC es necesario soporte y mantenimiento de la red lógica y del internet; capacitación de los profesionales en informática y organización de educación permanente.

Descriptores: Registro electrónico de salud, Registro de enfermeira, Atención Primaria de Salud.

INTRODUCTION

In Brazil, the national primary care policy defines Primary Health Care (PHC) as the basis for the restructuring of the health system, and as the coordinating and ordering function of the health care and attention networks.¹

The current information system for financing and adherence to the programs and strategies of the national primary health care policy is the Health Information System for Primary Health Care, established by Administrative Rule from the Ministry of Health (MH) No. 1,412, July 10th, 2013, created by the Department of Primary Health Care with the objective of increasing PHC's accountability and ensuring continuity of care to the user.²

The Health Information System for Primary Health Care was developed to replace the Primary Care Information System that had been implemented in 1998 to be an instrument for monitoring Family Health actions.

Considering the *Sistema Único de Saúde (SUS)* [Brazilian Unified Health System], e-SUS PHC is the strategy that operationalizes the Health Information System for Primary

Care and aims to restructure the health information in PHC at the national level, facilitate the process the work of the teams, increase the quality of information management and promote quality assistance to the user. The e-SUS PHC Strategy is composed of two software systems for data capture: Simplified Data Collection that allows access to information on the health and health conditions of the population; and the Electronic Citizen Record (ECR), which records the clinical visits performed by health professionals, who feed the Health Information System for Primary Care.³

The ECR is a software system that integrates the e-SUS PHC Strategy developed with the objectives of integrating and sharing health information in the context of Primary Care, qualifying the clinical record and enhancing the work process, prevention planning actions disease, health promotion, and management of the care of the teams in the Basic Health Units (BHU).⁴

The ECR is fundamental to provide a quality and integral assistance to the citizen, because it enables health-care professionals to access user information; such as your personal data, requested tests, and the patient's clinical and family history.⁵

For the use of the ECR it is ideal to have a computer in each point of service to the citizen inside the BHU, so that the registration is made in the initial contact and in the other moments that the same one is receiving assistance.⁴

The nurse, as a member of PHC's health team, shares with the team the responsibilities and responsibilities of this level of care, carrying out actions for disease prevention, maintenance, and health promotion, treatment, diagnosis, rehabilitation, and harm reduction. Its objective is to provide quality health care to individuals and collectives, covering their determinants and determinants.¹

The nurse's job is caring whose work process is composed of the following dimensions: watch, administer/ manage, educate, research and participate politically.⁶ Human care is understood as: "a way of caring that human beings have, with themselves and with the Universe".^{7:95} Bearing in mind this perspective, the care presupposes values and essential elements for their full exercise, contemplating respect for others, nature and life, and elements such as compassion, solidarity, and ethics.⁷

The implementation of nursing care is a challenge for the nurse of PHC, whose working conditions can be considered as a difficult element for the accomplishment of good health practices. Considering this context, BHU have been presenting: inadequate infrastructures for the operation, overload of the nurse's work, insufficient material and human resources, constant pressure and tension of the users for care. The need to build interpersonal relationships between users and professionals, based on dialogue, listening, humanization and respect, among others, is added. Therefore, the practice of nursing care is based on nurses' understanding and reflection about their work process and

the team, to increase the quality of care provided and to overcome the challenges.^{8,9}

The ECR contributes to nursing care, since records are important to ensure the continuity and quality of nursing care. The Resolution No. 429/2012, states that: it is the duty and responsibility of nursing professionals to record in the medical records and in their own documents all information related to the process of caring for and managing the work processes, using traditional or electronic means of support.¹⁰

The nursing process is used to organize the work process of nurses and for the nursing care registration.¹¹ This process consists of dynamic and interrelated steps directing the actions, contributing in the care allowing the identification of needs and health conditions.¹²

The stages are defined as follows: identification of conditions, needs, and health problems; delineation of the nursing diagnosis; pacing of the care plan; implementation of planned actions and evaluation of the results obtained.¹¹

Nursing records are essential for the permanent communication between the multidisciplinary and nursing team in the health service. Moreover, nursing records are essential instruments that can be consulted in situations that involve scientific, ethical, legal, educational and quality aspects of care.¹

It is observed that nursing records have not been trustworthy in relation to professional practice and the care received by patients, due to the large presence of errors, erasures, illegible letters, not standardized abbreviations and acronyms, and other problems that make the team communication a bit challenging.¹³ In this framework, the ECR arises to contribute and adapt the nursing records as well as to favor the care provided to the users.⁴

Given the aforementioned, this study aimed to analyze the perception of nurses on the implementation and use of the ECR in nursing care.

METHODS

It is a descriptive research with a qualitative approach.

The scenario of this research was a municipality of *Minas Gerais* State, which included 8 BHUs that have the ECR established, among them, 6 BHUs with assistance model of the Family Health Strategy and 2 with the traditional model. The implementation of the ECR in the mentioned municipality began in 2014 and is part of the strategies of the Leading Plan for Primary Health Care in the city.¹⁴

The research participants were 11 registered nurses. The contact with the participants occurred in an individual way through telephone and personal, being exposed the objectives of the research and its relevance. Included in the study were all the nurses who had been filled in these BHU since the implementation of the ECR, who underwent specific training to use it and accepted to be interviewed.

Exclusion criteria were nurses who were on vacation, leave and leave during the period of data collection, those who could not be interviewed on the day marked by the researcher, due to personal or work problems and those who did not agree to participate in the research.

The data collection instrument used was the semistructured interview with a guiding script that addressed the following questions: What is the ECR for? What is your opinion about the implementation of the ECR in the BHU? In your opinion, what were the contributions and challenges by using the ECR in nursing care?

The interviews were previously scheduled according to the availability of the participants and were recorded in audio and transcribed in their entirety, totaling 52 minutes of recording. Data collection took place from March to April 2017. All participants who voluntarily accepted to participate in the study signed the Informed Consent Form (ICF).

In order to preserve the respondents' anonymity, the letter "I" was added with sequential Arabic numbers, according to the interviews. Each respondent received a code that ranged from I1 to I11.

The analysis of the data was performed through content analysis, such as thematic analysis.¹⁵ The thematic analysis is divided into three stages: pre-analysis, content exploration and interpretation of the results achieved. The pre-analysis consists of the floating reading and demand familiarity with the field material, formulation, and reformulation of theories or assumptions.¹⁶ In the stage of content exploration, the researcher seeks to identify in speech content, words or expressions that will be significant for the construction of thematic analysis.¹⁷ Subsequently, the data are collected and classified into theoretical or empirical categories responsible for specifying the topic.¹⁵ From there the researcher realizes the interpretation and the inferences of the results achieved relating them with the theoretical references or with new interpretative contributions pertinent to the matter.

Based on the interviewees' statements, the following 3 categories appeared: The ECR from the primary care nurses' viewpoint; Implementation of the ECR in the BHU; Contributions and challenges by using the ECR for nursing care.

The research was sent to the Research Ethics Committee of Human Beings from the *Universidade Federal de Juiz de Fora (UFJF)*, and approved under the Legal Opinion No. 1.874.665 on 12/19/2016.

RESULTS AND DISCUSSION

All participants in the study (11) were women, and only one was single. The participants' age ranged from 28 to 59 years old, with an average of 41 years old. The time elapsed from the graduation completion was from 6 to 36 years. Regarding the vocational training, 45.4% had a master's de-

gree and 45.4% *latu sensu* specialization. Only one nurse was just graduated. With regards to the time of experience in PHC, it was verified that the participants presented working years at minimum of 3 and maximum of 25 years.

The ECR from the primary care nurses' viewpoint

When questioned about the understanding of the ECR, the nurses described it as: an instrument for recording activities, a database of information about the individual, an information system, a service organizing tool, a team integration and care tool, as described in **Table 1**.

Table 1 - Nurses' perception about understanding what ECR really is. 2017

Subcategory	Nurses' viewpoint
Recording	<i>A kind of a record on the actions that we provide to the user, about everything that has been done, is a record, a memory (I1).</i>
Database	<i>Where all the patient's data is stored on the computer, where other professionals can also view it (I9).</i>
Information system	<i>Electronic Records for me is an electronic system, which comes to facilitate the service of the user (I10).</i>
Service organizing tool	<i>In fact, the ECR is the electronic citizen record, it as a tool, it is very good, it would serve to go faster, organize the service (I8).</i>
Team integration and care tool	<i>I think it's a planned and followed care... we do the evaluation of the patient and the plan. I like the patient's treatment plan a lot, because when he comes back you already check that plan, you see what you did, what you did not do, what the patient did, what the family did, what they failed to do, and can outline a new plan (I7).</i>

Source: Research data, 2017.

Implementation of the ECR in the BHU

When they asked the nurses to tell about the implementation of the ECR in the BHU, most of them did not describe how the implementation in the BHU had happened. They pointed out the difficulties and facilities of implementing the ECR experienced by them.

I1 reported that he did not experience the implementation of the ECR in the BHU in which he works, but he experienced it in the BHU that previously worked. He said that the training carried out by the Health Department contained basic information, and that it did not serve as a basis for the use of the ECR in the daily life of BHU.

For I2, the implementation happened without hearing the opinion or the discussion about the ECR among the professionals of the PHC, characterized the qualification for the software as insufficient, since it still needs to understand and to appropriate more of it:

I think it was a lot like this: "you will do it", but without much information, there is still a lot to learn, what was given was the basics (I2).

I2 reported that he already knew the ECR because he

had previously worked in another unit. However, when he arrived at BHU where he currently works, he realized that ECR was not in place. So he decided to ask for his deployment. He reported that initially, BHU professionals underwent training on the use of ECR. The computers were then installed on BHU. The greatest difficulty encountered during the implementation of the ECR was the resistance of the professionals, regarding the use of the computerized system.

I4 reported that the implementation of the ECR occurred after the reform of BHU, first with the installation of the logical network, soon after the professionals underwent a rapid training:

You end up forgetting, that it was a very fast training, a 2-hour training only, with a lot of things that has the ECR (I4).

The professionals are discovering the functions available by the system making use in the daily work. This is interesting because it is one of the ways to learn by doing, which favors communication and collaboration in the work environment. Nonetheless, a greater amount of time can be lost to use the full potential of the system.

Contributions and challenges by using the ECR for nursing care

The results of the nurses' contributions towards the ECR will be presented below. They were gathered in **Table 2**, and appeared in the following 6 subcategories: registry, service organization tool, research tool, care planning tool, a computerized system, and regulation tool.

Table 2 - Nurses' perception regarding the ECR contributions to nursing care. 2017

Subcategory	Nurses' viewpoint
Registry	<i>Contributions, it is very easy to record (I4).</i>
Service organization tool	<i>The electronic citizen record, it is very good, it would serve to go faster, organize the service (I8). It has facilitated our work and controlled the material loss (I10).</i>
Research tool	<i>Another thing is also that it brings us a certain gain, so even if we need to do research, we have these records already, easier to access than the physical one (I4).</i>
Care planning tool	<i>It allows us to have better access, a quick check, even if I go to see a patient from another area... I can look at what has already been done, and then give continuity in the assistance (I9).</i>
Regulation tool	<i>You see exactly who works, who does not work, so, for instance, there is a community agent who had not yet registered, right, who had a record in debt. So this has been identified, a lot has been identified, thanks to the electronic record... The community agent himself has to make the record of the visits he made, the record he made, and then if he does not record... People have to show it to him, and in one's own production it appears (I11).</i>

Source: Research data, 2017.

In **Table 3** are presented the perceptions of the nurses about the challenges of the ECR for nursing care. The following subcategories appeared: logistics, access to functionalities, resistance to change and legal support.

Table 3 - Nurses' perception concerning the challenges of ECR for nursing care. 2017

Subcategory	Nurses' viewpoint
Logistics	[...] <i>What happens is that here, at least here in municipality xx, the provider (internet) is one for all city hall. So, there are times when the system gets very slow, there are times when you cannot open the system, and you have to do it manually, you know. But it is more a matter of logistics than of the record itself (I4).</i>
Access to functionalities	<i>The most difficult is that, because the care, when we will record the nursing care, only the nurse has access, the technicians do not have. They can only access the procedure, they cannot make a very detailed note of that procedure and this does make it difficult for the nursing work, sure it does (I10).</i>
Resistance to change	<i>There are the old employees, already accustomed to doing it in old fashion, so they are not open to computerization (I5).</i>
Legal support	<i>To the COREN*, it has no validity, since our electronic record is not physical (paper), so if we do not sign and stamp it down, it has no value (I10).</i>

*Conselho Regional de Enfermagem (COREN) [Regional Nursing Council].
Source: Research data, 2017.

It is perceived that the relative opinions as the nurses define the ECR, converge to the concept presented by the MH,⁴ but not all participants were able to express the comprehensiveness of what is the ECR and its capacity to generate and produce information for care.

The ECR is a software system that integrates the e-SUS PHC Strategy developed with the objectives of integrating and sharing health information in the context of Primary Care, qualifying the clinical register and enhancing the work process, prevention and health promotion and management of the care of the teams in the BHU. The ECR enables the development of health information records oriented by the health demands of the user.⁴

The ECR is more than a registration system, since it has several important functions that will corroborate for the planning of the care, be it individual or familiar, and may even assist in actions to be developed in the community. The ECR allows the continuity of integrated care to the user, communication between the team and information sharing.⁴

The ECR allows data to be released during consultations, procedures or home visits.¹⁸ It has the database functionality of the activities carried out by the professionals, and, through the analysis of these records, identify if there is a production of care by the team. Such activity can assist in the planning and programming of the activities to be developed in the unit by the team.

It has been shown that the ECR is an information and management system for the BHU that are computerized.¹⁹ By taking this perception into consideration, the participants understand the breadth of the ECR as an organized

set of data and activities that interact with each other to process information in a way that achieves the goals set by the system.

It was verified that the ECR was understood as a tool of the organization of the service in the BHU. This definition is in line with the National Council of Health Secretaries,²⁰ which understands ECR as the tool for managing the users' cadastre in the territory and organizing the agendas of BHU professionals. The ECR does not only perform the function of a service organization, it collaborates, however, its main function is to provide conditions for the development of integrated health care for the citizen user of the system.⁴

Furthermore, the ECR was described as a tool for nursing care, since it allows the management of the care of the population in an efficient and effective way, allowing the monitoring of the evolution of the patient's status.²¹ Its problem-oriented registration methodology is subdivided into the steps: Subjective, Objective, Assessment and Planning (SOAP). It is verified, then, that the ECR collaborates with the nursing care.

According to the SOAP methodology, data collection refers to the subjective stage; the physical examination at the objective stage; the nursing diagnosis at the evaluation stage; and the planning of nursing actions to the flat stage. On the other hand, the nursing implementation and evaluation are carried out in the continuation of the actions in the BHU and in the records of the continuity of care.²¹

For the COREN-SP,²² this method contemplates the nursing process because it works under the logic of a rationale that directs data collection, nursing diagnosis, planning of actions or interventions and provides data for the assessment of nursing outcomes.²²

Because it is still a new instrument and its recent implementation in the BHU, with little discussion in the academic and scientific milieu, in the adopted references there are divergent positions and evaluations about the ECR for nursing care. In this sense, the *Conselho Federal de Enfermagem (COFEN)* [Brazilian Federal Nursing Council]¹¹ issued an opinion in which it points out that the ECR needs to be improved to contemplate the Nursing Care Systematization steps.

Hence, the research shows that the implementation of the ECR is incipient in this municipality, and it is observed the lack of information for the majority of professionals who use it in daily life. It emerged from the participants' statements that the understanding of the ECR and its functionalities is still embryonic. Consequently, it is understood that there is a need for continuous monitoring and training for professionals, as a way of qualifying them for the use of all the potential that the software offers.

During the process of implementation of the ECR in the municipality were perceived some barriers. It was evidenced the resistance of some professionals in regards to the changes and proposed changes, such as the inability to use computerized tools. Technological innovation can

cause the resistance of professionals in the process of implementing e-SUS and ECR. This is because many professionals had little or no access to the information system previously. Moreover, most PHC workers were born before the 1990s and are not part of the highly technological generation, with little computer skills.²⁴

One of the ways to minimize these problems consisted in the provision of training for the professionals who had little computer skill, being made available by the health department. Despite the offer of this training, some nurses reported that the courses were fast and insufficient to meet all staff needs for ECR use.

In a study carried out on the implementation of e-SUS in a given municipality, it was identified that the training performed by the Health Department was insufficient to meet the demands of the professionals, which caused difficulties regarding the use of the system.²⁵ It is worth mentioning that the MH had given a deadline for the implementation of the ECR in the country, from July 2013 to December 2016, but not all municipalities were able to comply with it.²⁶ Thus, as happened in the municipalities described, it can be inferred that the courses were fast with the intention of fulfilling the MH requirement.

At the beginning of the e-SUS deployment, professionals should be presented with the tools, functionalities, and definitions involved, so that they can begin the process of training the groups separately.²⁷ Then, the professional who trains must observe the demands of those who are trained, noting the fragilities and potentialities of the system.

Another difficulty experienced in the implementation of the ECR was the lack of sufficient equipment for the use of the same by all BHU professionals. In a study about the implementation of e-SUS in the municipality of *Rio Pardo, Rio Grande do Sul* State, it was observed that the lack of equipment represented an obstacle in the process of implementation of the system. It was noticed that in the studied BHU there were only two computers in which the professionals took their use, making the work process difficult.²⁴

It was observed that the implementation of the ECR in the municipality of this research, followed the same steps proposed by the municipality of *Rio Pardo, Rio Grande do Sul* State, both adopted the recommendations of the national guidelines for implementing the e-SUS strategy.²⁸ The problems and difficulties of implementing the ECR in the municipality do not escape those mentioned in the mentioned studies. It is up to the secretaries to invest in remedying the problems and improving and making the ECR available to the workers and users of the system. So, it is necessary to have equipment and structures to carry out the proposed work.

As a way to overcome the challenges arising from training for the use of the ECR, the communication among the professionals of the team was highlighted by the nurses as a facilitator, allowing the exchange of information among the professionals of the team, to clarify the doubts about

the use of the ECR.

Concerning the contributions in the use of the ECR for nursing care, its objectives include qualifying care, expanding professional decision-making, and sharing information about BHU users and territory.²⁹ In this context care can be understood as a product produced from the meeting between the user that brings their health needs and the professional, who with their technology bag uses them to identify and meet the needs of the user, aiming at the autonomy of care.³⁰

It is observed in **Table 2** that the ECR collaborates for nursing care as a tool for registration. The nursing record is essential for professional practice, which over time has been innovating in its form and quality while maintaining its focus on the continuity of care to the user.³¹ Thus, the ECR presents itself as a tool that allows nurses to register their activities, favors communication among nursing staff professionals, and allows the archiving of information among users, among other contributions.

Therefore, the ECR brings a contribution in favor of nursing care to the user. It is worth mentioning that the International Classification of Primary Care (ICPC-2) was adopted to identify and describe the problems presented by the user,³² being used by PHC health professionals. Nevertheless, considering the specificity of the nursing diagnosis, this should be written based on the taxonomies and classifications of the category.

The organization of the service can be favored through the use of the ECR, as reported by some participants. The organization's function is to unite the institution's services, including nursing services, to work together to achieve proposed results.³³ Accordingly, the ECR places itself as an interlocutor of the BHU services with the nursing service, promoting agility in the attendance, organization of the professionals' schedules and the users' queues, collaborating with the assistance model proposed for the PHC.

The nurse in the context of PHC has referred to work overload, lack of individual and collective protection equipment, the absence of some medications, insufficient numbers of employees, lack of material resources and inadequate physical structure for qualified care, which has hampered the quality of life.³⁴ Therefore, tools such as the ECR, which collaborates with the service and in the organization of the nurse's work, can generate the reduction of stress, causing work-related illnesses.

The ECR, according to nurses' reports, collaborates with the nursing service when it is possible to register the host, which is one of the organizational tools. The host is qualified listening that guides the professional in meeting the user's need, establishing priorities, humanizing care, and thus, allowing qualified care.³⁵

For other participants, the ECR was pointed out as important for nursing care, because it also presents itself as a research tool. The research in nursing is a work process that has the nurse as agent; as object or knowledge in nurs-

ing; and as a product the new knowledge.⁶ In this dimension, the ECR can support the nurses' understanding with regards to the users' health, social and psychological status, then enabling the compilation of information and the production of new knowledge, strengthening nursing as a science and profession.

It was also identified that the ECR collaborates with nursing care planning. For Santos, "The planning of nursing care as a care management action occurs through a continuous exercise of making choices and drawing up plans to carry out or put a particular action into practice".^{36:260} Therefore, the ECR contributes to the planning of the nursing care, in which the nurse can register it, collaborating in the continuity of the same.

The importance of the ECR for nursing care as a computerized system emerged from the statements of the participants. The computerized system can be understood as the interrelation between the elements involved in the collection, processing, storage and distribution of the information, that sustain the decision making and control processes in health services.³⁷ In this regard, the ECR, being part of a computerized health system, contributes to nursing care in the administering dimension, since it minimizes the loss or loss of the patient's medical records, facilitates the understanding of the registry of professionals and optimizes the time of care, allowing the nurse access to health information of the user.

Another contribution of the ECR to nursing care involves its functionality as a supervisory tool. Supervision can be described as a continuous process of motivation and professional growth, assuming that the supervisor observes and knows the work process of his team.³⁸ In this sense, the ECR provides reports on the activities performed by the professionals, subsidizing the process of supervision and organization of the work of the nurse supervisor of the nursing team and the health unit.

In this regard, it can be seen that the ECR has contributed to the promotion of nursing care. The nurses also realized that the ECR should be unified, acting as interlocutor of the attention networks and reference instrument and against a reference, which will facilitate the coordination of nursing care in an integral approach.

It can be inferred that in this study the ECR is inserted in the nurses' work process in the dimensions of administering, researching and assisting. In the work process, managing can be a tool that cooperates in decision-making, planning, and supervision. In the work process "researching" is a tool that will aid in research, subsidizing the nurse in finding new and better ways to administer and assist according to the context that it is inserted. And in the "assisting" work process, the ECR facilitates the registration and planning of nursing care and the follow-up of the individuals' health-disease process.

It was noted that for nurses the greatest challenge for nursing care found in the ECR was logistics. In a study car-

ried out in *Teresina* city, *Piauí* State, it was also verified that the professionals interviewed identified difficulties in the logistics of the ECR, impairing the attendance at the BHU.²⁹ Therefore, it is necessary to carry out continuous evaluations and maintenance of the logistics to identify problems and solve them so that the ECR is used in its fullness fulfilling the proposed objectives, among them: providing integral care.

Another difficulty for the nursing care identified in the ECR is the access to the functionalities. The *e-SUS* PHC system determined the access profile of PHC professionals to the functionalities of the ECR, according to the Brazilian Occupational Classification. However, the profiles can be modified according to the need and the location.⁴ So, it is essential that there be discussions around the profiles of access to the functionalities of the ECR, so that the needs of the professionals are heard and the access profiles are changed, so that access to all professionals is promoted for detailed registration of nursing care.

It was also identified that one of the challenges for nursing care refers to the resistance of the team professionals to adherence to the ECR. The possible causes for resistance to the use of health information systems were described as: ignorance of technology as a work tool, delay in the inclusion of health informatics and the outdated school curricula with regards to the inclusion of education on informatics.³⁹ Therefore, it is important that local managers promote the permanent education of these professionals and provide support so that they are prepared and motivated to use the ECR.

Another worrying aspect is the validity of the nursing records carried out in the ECR, since according to the Resolution No. 429/2012 from the *COFEN*,¹⁰ which provides for the registration of professional actions in the electronic patient record and in other nursing documents, the digital signature is indispensable to give credibility to the records. Still, this aspect has not yet been contemplated in the ECR. Nevertheless, it is expected that in the next updates of the ECR digital signature is contemplated, which would facilitate the work process and guarantee the professional legal support of their actions.

As a result, it can be seen that the ECR needs updating and improvement so that the challenges can be overcome. For this to occur, it is necessary that meetings and discussions be held between BHU professionals and local managers, so that problems are raised and discussed. In addition, support, logistics, and permanent education are essential for the full implementation and use of the ECR.

CONCLUSIONS

This study allowed the assessment of the perception of nurses from BHUs regarding the implementation and use of the ECR in nursing care. The nurses identified that the ECR showed to be a tool that could contribute to the im-

provement of BHU functioning and to the qualification of care. The ECR assists in strengthening the nurses' work process, in the decision-making process, and also collaborates with nursing care.

The implementation of the ECR in the BHU in which the investigation occurred followed all the guidelines established by the MH, but it was noticed that there was little discussion with those involved about this implementation process, leading to the conclusion that it was conducted by the heads of the secretariat of health, due to the need to meet the MH requirements. It was verified that the training was superficial and elementary, generating difficulty concerning the ECR use.

Among the potentialities identified, the ECR can collaborate: with nursing care; in the qualification of the nursing record; assists in the organization of the service, allowing communication between BHU professionals; favors the planning and supervision of care enabling continuity of care and is a tool that can cooperate with research in the generation of new knowledge. In other words, the ECR collaborates in the nurses' work processes in assisting, administering and researching.

The difficulties are logistic: failures in access to the Internet, lack of equipment and logical network, impairing the effective use of the ECR. They also reported the presence of the resistance of some BHU professionals regarding the changes coming from the ECR, due to the lack of computer skills and objections to technological innovations. Additionally, the absence of the electronic signature of the nursing records is cited.

Hence, in order to ensure the proper functioning and implementation of the ECR in the BHU, it is recognized the urgent need for permanent education for PHC professionals in order to resolve doubts vis-à-vis the ECR and to develop pertinent themes that subsidize the practice in the system. It is suggested to carry out studies that can improve the ECR to favor the activities of the nurse and the particularities of nursing care. Furthermore, the following actions are essential: training for professionals with difficulties of using information technology; promoting support and maintenance of the internet and logical network by local managers, ensuring continuity of use and implementation of the system; allowing the continuity of the ECR implementation in other BHUs. By taking this approach, it is hoped to strengthen the primary health care policy in the SUS.

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