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Practices of nurses in monitoring Chronic Non-communicable Diseases in Primary Health Care[a]

Práticas do enfermeiro no monitoramento das Doenças Crônicas Não Transmissíveis na Atenção Primária à Saúde

Prácticas del enfermero en el seguimiento de las Enfermedades Crónicas No Transmisibles en la Atención Primaria de Salud

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Abstract

Objective: to analyze the Primary Health Care nurses' practices for monitoring the four main Chronic Non-communicable Diseases (circulatory system diseases, cancer, diabetes, and chronic respiratory diseases) in a city in the interior of Santa Catarina State. **Method:** single case study, qualitative approach. Data was collected through triangulation of techniques: focused interviews, document analysis, and online database, from January to July 2019. The analysis techniques were given by means of theoretical propositions and the construction of explanation regarding the nurses' practices. **Results:** the nurse's practices for monitoring chronic diseases identified were: *HiperDia* Group; health education; tele-monitoring; welcoming; home visits; nursing consultation; care plan; self-monitoring and protocols. **Conclusion and implications for the practice:** the nurses in the studied context perform several practices for the monitoring of chronic diseases, contributing to the effectiveness of policies for this condition and, possibly, with the drop in the mortality indicator for these causes.

Keywords: Nursing Care; Chronic Disease; Nursing; Public Health; Public Health Surveillance.

Resumo

Objetivo: analisar as práticas do enfermeiro da Atenção Primária à Saúde para o monitoramento das quatro principais Doenças Crônicas Não Transmissíveis (doenças do aparelho circulatório, câncer, diabetes e doenças respiratórias crônicas) em um município do interior do Estado de Santa Catarina. **Método:** estudo de caso único, de abordagem qualitativa. Os dados foram coletados por meio de triangulação de técnicas: entrevistas focadas, análise documental e banco de dados *on-line*, de janeiro a julho de 2019. As técnicas de análise deram-se por meio de proposições teóricas e da construção da explicação relativas às práticas dos enfermeiros. **Resultados:** as práticas do enfermeiro para o monitoramento das doenças crônicas identificadas foram: Grupo HiperDia; educação em saúde; telemonitoramento; acolhimento; visita domiciliar; consulta de Enfermagem; plano de cuidados; automonitoramento e protocolos. **Conclusão e implicações para a prática:** os enfermeiros do contexto estudado realizam práticas diversas para o monitoramento das doenças crônicas, contribuindo para a efetividade das políticas para esta condição e, possivelmente, com a queda no indicador de mortalidade por essas causas.

Palavras-chave: Cuidados de Enfermagem; Doença Crônica; Enfermagem; Saúde Pública; Vigilância em Saúde Pública.

Resumen

Objetivo: analizar las prácticas de los enfermeros en la Atención Primaria de Salud para el seguimiento de las cuatro principales Enfermedades Crónicas No Transmisibles (enfermedades del aparato circulatorio, cáncer, diabetes y enfermedades respiratorias crónicas) en un municipio del interior del Estado de Santa Catarina. **Método:** estudio de caso único, con abordaje cualitativo. Los datos fueron recolectados a través de triangulación de técnicas: entrevistas focalizadas, análisis de documentos y base de datos en línea, de enero a julio de 2019. Las técnicas de análisis ocurrieron a través de proposiciones teóricas y la construcción de la explicación relacionadas con las prácticas de los enfermeros. **Resultados:** las prácticas de enfermería para el acompañamiento de las enfermedades crónicas identificadas fueron: Grupo HiperDia; educación para la salud; televigilancia; recepción; visita a casa; consulta de Enfermería; plan de cuidados; autocontrol y protocolos. **Conclusión e implicaciones para la práctica:** los enfermeros en el contexto estudiado realizan diferentes prácticas de seguimiento de enfermedades crónicas, contribuyendo para la efectividad de las políticas para esta condición y, posiblemente, con una caída en el indicador de mortalidad por esas causas.

Palabras clave: Atención de Enfermería; Enfermedad crónica; Enfermería; Salud pública; Vigilancia de la Salud Pública.

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INTRODUCTION

Primary Health Care (PHC) has advanced in the paradigm of coordination of the Health Care Network (HCN) and in the resoluteness of collective health problems. This is due to its potential to identify health risks to the population, conduct education and community guidance with longitudinal, comprehensive, family-centered care. In Brazil, PHC is structured through multidisciplinary action organized primarily in teams of the Family Health Strategy (FHS).[1]

At this conjuncture, nurses have revealed themselves as important professionals for the consolidation and expansion of PHC due to their contribution in the identification of community care needs and empowerment of people in relation to health and disease processes.[2,3] The role of the nurse in the FHS is evidenced in the health care of people with Chronic Non-communicable Diseases (CNCD). The increased prevalence of these diseases demands a new way of acting towards health promotion in order to avoid complications and provide quality of life for people with any disease of this nature.[1]

CNCDs represent one of the main public health problems in the world, being related to the deprivation of well-being, work limitations, and aggravating the economic problems of families. Among these diseases, four main causes of premature deaths stand out: cardiovascular diseases, neoplasms, diabetes, and chronic pulmonary diseases. Thus, monitoring CNCDs implies a cost-effective intervention in addressing this new epidemiological profile for which it is possible to evaluate the effectiveness of public policies for CNCDs and better outline health planning.[4]

Currently, the relevant growth of these diseases and the alarming epidemiological profile of premature deaths project a new perspective of PHC performance towards health promotion, death avoidance and quality of life of people living with these diseases.[2-4] In this context, the role of nurses stands out, whose work and intervention dynamics regarding CNCDs in PHC may change, depending, among other aspects, on the size of the municipality, the coverage of the FHS, the epidemiological and territorial profile of the population.

These multiple elements, together with the administrative and assistance demands of PHC, indicate possible gaps regarding complexity and plurality[3,5] of knowledge in different contexts and demand studies on the CNCD monitoring practices performed by PHC nurses. In this sense, this study is justified, and its dissemination will allow us to expose the modalities of such practices in a real scenario, in addition to contributing to the surveillance and care of people with CNCDs.

By admitting, as theoretical propositions, that the activities developed in PHC are related to the reduction of premature mortality rates by the four main CNCDs and that PHC nurses develop specific activities for the monitoring of CNCDs, we asked ourselves: "How do Primary Health Care nurses act for the monitoring of the set of the four main Chronic Non-communicable Diseases?"

Thus, the objective of this study was to analyze the Primary Health Care nurses' practices for monitoring the four main Chronic Non-communicable Diseases (circulatory system diseases, cancer, diabetes, and chronic respiratory diseases) in a city in the interior of Santa Catarina State.

METHOD

This is a qualitative, single case study type of research, comprising an empirical investigation that seeks to delve into a contemporary phenomenon through holistic and meaningful characteristics of the events.[6] The holistic single case methodological application was chosen because it is a representative and revealing case for the theme in question, since the information simulates usual institutional events of a constant phenomenon, characterizing a logical unit.

The stages of the case study were respected with the procedures of protocol elaboration for the study from the previous admission of theoretical propositions. Then, data collection was processed, based on three main sources of evidence, aiming at data triangulation: interviews, documentary research, and research in public online databases. In the next step, we developed the case description and the construction of the explanation or explanation of the phenomenon.[6]

The study was conducted in twelve Basic Health Units (BHUs) of the PHC of a small municipality in Santa Catarina. The chosen scenario was selected for having 100% FHS coverage and a majority rating between "excellent" and "very good" in the performance certification of the National Program for Improving Primary Care Access and Quality (PMAQ).

As a source of data, the following were used: 1) focused interview conducted with PHC nurses from a municipality in the interior of the State of Santa Catarina; 2) documentary research based on documents published by the Ministry of Health and the Regional Council of Nursing of Santa Catarina (Coren-SC) and 3) online public data collected from the software solution provider of the Ministry of Health (DATASUS). This triangulation of data contributes to the validity of the construct, i.e., it allows a deeper approach to aspects related to the object of study, making it possible to develop converging lines of investigation, which confers greater reliability to the research.[6]

For the public data survey, we used the death records of Timbó residents by CNCDs classified by the 10th Revision of the International Classification of Diseases (ICD-10): circulatory system diseases (Codes I00-I99), malignant neoplasms (Codes C00-C97), respiratory system diseases (Codes J30-J98) and Diabetes Mellitus (Codes E10-E14), in individuals aged 30 to 69 years, considered the causes of premature mortality in the years 2005 to 2015. This time cut is justified by the availability of data in DATASUS. However, despite being official data, it should be noted that circulatory and respiratory system diseases are not necessarily chronic health problems, and may be acute diseases that led to death. Thus, these data require caution in their analysis.

The interviews were conducted at the workplace of each participant, lasting approximately 30 minutes, in the period from January to July 2019, using a semi-structured script, component of the case study protocol prepared by the authors, which sought to answer the guiding question: "How do Primary Health Care nurses act in monitoring the set of the four main Chronic Non-communicable Diseases?" The interviews were recorded and later transcribed in full.

As for the documents, 18 documents were selected, including guidelines, manuals, protocols and Basic Care Notebooks of the

Ministry of Health, subsequently named Doc1 to Doc18 (Chart 1). Finally, the mortality rates were organized after calculating the specific mortality rates according to age group, per 100 thousand inhabitants, through the estimated population in the municipality from the Brazilian Census of 2010, according to the grouping of premature causes of mortality by ICD-10, by the direct method and adjusted by applying the average centered on three terms in the researched period.

Data was processed with the help of MAXQDA®2018 software and analyzed following the analytical strategy of theoretical propositions (previously elaborated theoretical propositions) to describe and explain the case. Thus, the analytical technique of explanation construction was used whose purpose is to analyze the study data, building an explanation about the phenomenon.[6]

The study was authorized by the Municipal Health Secretariat and approved by the Research Ethics Committee of the Federal University of Santa Catarina under Opinion no. 3.168.895. All participants signed the Informed Consent Form. The extracts of the participants' testimonies are identified in the text by the acronyms E1 to E12.

RESULTS

The study population was characterized as census, since all 12 PHC nurses in the municipality were interviewed of which 11 are nurses and one is a nurse, with an average age of 42 years. The participants had an average education of 20.6 years and average experience in the PHC field of 15.3 years. Of the total, 11 had at least one specialization, being two interviewees with *Stricto sensu* (master's) degree.

It is important to highlight that, prior to the interviews; the trend of premature mortality indicator for the four main CNCDs was identified in the municipality under study. This initiative made it possible to recognize the behavior of CNCD mortality in this

Chart 1. Documents analyzed in the case study data triangulation. Timbó, SC, 2019.

Code/ Reference	Title	Year of publication	Responsible Body
Doc1[7]	Control of cervical and breast cancer	2013	Ministry of Health
Doc2[8]	Screening	2013	Ministry of Health
Doc3[9]	Chronic Respiratory Diseases	2010	Ministry of Health
Doc4[10]	Spontaneous Demand Management: most common complaints in Primary Care	2012	Ministry of Health
Doc5[11]	Strategies for the care of the person with Chronic Disease	2014	Ministry of Health
Doc6[12]	Strategies for the care of the person with Chronic Illness - Diabetes Mellitus	2013	Ministry of Health
Doc7[13]	Strategies for the care of the person with Chronic Disease - Systemic Arterial Hypertension	2014	Ministry of Health
Doc8[14]	Strategies for the care of the person with Chronic Illness - Obesity	2014	Ministry of Health
Doc9[15]	Strategies for the care of the person with Chronic Illness - Care of the smoker	2015	Ministry of Health
Doc10[16]	Guidelines for the care of people with chronic diseases in the health care networks and in the priority lines of care	2013	Ministry of Health
Doc11[17]	Brazilian guidelines for tracking cervical cancer	2011	Ministry of Health/ INCA
Doc12[18]	Reorganization plan for hypertension and diabetes mellitus care	2001	Ministry of Health
Doc13[19]	Integration between primary care and health surveillance	2018	Ministry of Health
Doc14[20]	Manual of the diabetic foot: strategies for the care of people with chronic disease	2016	Ministry of Health
Doc15[21]	Perspectives and challenges in the care of people with obesity in UHS: results of the Laboratory of Innovation in the Management of Obesity in Health Care Networks	2014	Ministry of Health/ Pan-American Health Organization
Doc16[22]	Primary Care Protocols: Women's Health	2016	Ministry of Health
Doc17[23]	Women's Health: meeting women's demands in different life cycles	2016	COREN/SC
Doc18[24]	Hypertension, diabetes and other factors associated to cardiovascular diseases	2017	COREN/SC

case, as well as to establish an inference about the premature mortality rates for the four main CNCDs and the activities developed in PHC.

Thus, in the municipality studied, from 2005 to 2015, we identified the occurrence of 590 deaths from the four main CNCDs. The data from DATASUS showed a decline in mortality from CNCDs, especially in the 39 to 69 age group. A downward trend of 2% per year was observed in the premature mortality rate for the four major CNCDs (cardiovascular diseases, neoplasms, diabetes, and chronic lung disease) from 2005 to 2015 in Timbó (SC). We also observed a significant reduction in the average annual percentage change in the premature mortality rate in Timbó in the period from 2006 to 2014: -3.1 ^ (-2.8; -2.3).

These promising results of mortality decline in the four CNCDs may be effectively related to some action/intervention performed, especially in the PHC. The avoidability of such deaths is related to actions developed for the monitoring of people with CNCDs, besides those of health promotion and prevention of acute events resulting from these diseases. These facts allow triangulating with the actions revealed in the analysis of public documents and with those revealed by the participants, suggesting that such actions contributed to reducing the proportion of deaths from these causes.

The analysis derived from the sources of evidence enabled the identification of the practices of these nurses for the monitoring of CNCDs (Chart 2).

Chart 2. Summary of CNCD monitoring practices in the case study according to the source of evidence. Timbó, SC, 2019.

Monitoring Practice	Evidence in the interviews	Documentary Evidence
"*HiperDia*" Group	E1; E2; E3; E4; E5; E8; E10; E11; E12 *With this strategy [HiperDia], we realize that we no longer have decompensated patients. The change we have been observing is impressive.* (E5)	Doc2;[8] Doc5;[11] Doc6;[12] Doc10;[16] Doc17[23]
Health Education	E5; E11 *All patients come every two months to the unit to pick up their medication, they have a day that is their day, with a consultation with a nurse, a doctor, and they all participate in an educational activity focused on the pathology of the chronic disease.* (E5)	Doc2;[8] Doc3;[9] Doc4;[10] Doc7;[13] Doc8 ; Doc11;[17] Doc12[18]
Telemonitoring	E9 *We help them to seek quality and lifestyle changes to try to ward off the comorbidities, but without this follow-up, they can't do it.* (E9)	Doc2[8]
Reception	E3; E4; E5; E6; E7; E8; E9; E10; E11 *At the reception, we verify if the person is being followed up or not, if he or she is having his or her blood pressure measured or not, measuring his or her blood sugar or not.* (E3)	Doc2;[8] Doc3;[9] Doc4;[10] Doc 6;[12] Doc10;[16] Doc12;[18] Doc14;[20] Doc15;[21] Doc18[24]
Home visits	E2; E3; E5; E7; E8; E9; E10; E11 *The health agent who identifies and monitors the patients at home and communicates with us to make the visit and, thus, check how the patient is doing.* (E10)	Doc1;[7] Doc3;[9] Doc6;[12] Doc9;[15] Doc14;[20] Doc16;[22] Doc18[24]
Nursing consultation	E2; E3; E4; E5; E7; E8; E9; E10; E11; E12 *In the consultations, we guide lifestyle issues, necessary changes, and then we see the result.* (E10)	Doc1;[7] Doc4;[10] Doc12;[18] Doc14;[20] Doc15;[21] Doc18[24]
Care plan	E5; E6; E10 *We determine what we are going to do with him [the patient], whether we are going to schedule a medical evaluation or previous monitoring of hypertension or diabetes for a certain period and then evaluate [...] and, thus, we make an action plan. (*E6)	Doc1;[7] Doc2[8]; Doc4;[10] Doc8;[14] Doc9;[15] Doc10;[16] Doc11;[17] Doc12;[18] Doc13[19]
Self-monitoring	E5; E10 *As we follow up on this patient, we are able to do this rescue early on, before, necessarily, a stroke occurs, an amputation of a diabetic [patient]. (*E10)	Doc4;[10] Doc7;[13] Doc8;[14] Doc14;[20] Doc17[23]
Protocols	E1; E2; E3; E4; E5; E6; E7; E9; E10; E11; E12 *This is exactly what the protocol will bring, which is this greater autonomy for us to be more resolute in some situations.* (E5)	Doc1;[7] Doc14;[20] Doc15[21]

Source: Survey data.

Taking into account the decline in premature mortality rate from the four main chronic diseases in the analyzed period, among the monitoring practices performed by nurses in PHC, the following stood out: "*HiperDia*" group; health education; tele-monitoring; welcoming; home visits; nursing consultation; care plan; self-monitoring and protocols.

Through the "*HiperDia*" Group, the nurses revealed that they monitor people with Systemic Arterial Hypertension and Diabetes Mellitus in the UHS. This practice makes it possible to identify each person and provide regular information pertinent to the distribution of medication, to perform individual and collective health education activities, to check vital signs, to make medical and nursing appointments, and to deliver medication for continuous use, among others.

Difficulties in this practice were also pointed out, such as the excessive demand of patients, which hinders disease management and health education (E1, E2, E8, E9, E10), as well as problems with collective meetings due to the commercial working hours in the community (E3, E6, E9). Two participants (E5 and E10) focused that they were able to facilitate the periodic access to *HiperDia* by planning the periodicity.

In this context, one document analyzed (Doc 11[17]) reinforced the need for care planning, especially for insulin-dependent users, with emphasis on the implementation of the Systematization of Nursing Care, follow-up and establishment of goals with the person assisted.

Hypertension and diabetes were the diseases with the most monitoring strategies highlighted by the interviewees, while only one participant mentioned tele-monitoring and active search at home visit as a strategy for breast and cervical cancer linked to the national screening program (Doc 9[15]). On the other hand, chronic lung diseases have proven to be difficult to monitor due to under-diagnosis and lack of symptom control, impairing the reduction of complications and leading to unnecessary hospital admissions (Doc 9[15]).

The embracement was considered a CNCD monitoring practice by the subjects of this study (E3, E4, E5, E6, E7, E8, E9, E10, E11) because of the care provided to people who come to the BHU on spontaneous demand, without prior scheduling, with acute events or exacerbations of chronic conditions.

It was revealed that these appointments usually happened quickly due to excessive demand and work overload (E3). In the document analysis (Doc 8[14]), it was identified that the reception should be based on three aspects: 1) programmed agenda for specific groups; 2) agenda for acute care identified from the reception of spontaneous demand and 3) return/review agenda. These aspects were considered essential for the balance of the work process.

The nurses considered that the monitoring of CNCDs happened in an integrated way with the CHA during home visits, since this professional performs the periodic active search for people with chronic conditions at home (E3, E5, E9, E10, E11, E12). The importance of the CHA work was revealed in the documents analyzed, highlighting that this professional identifies the person who needs home care (Doc 6[12]), thus creating a flow of information about the health of the person with CNCD and the nurse.

The home visit was also considered a facilitator of the flow of people with CNCDs between the points of care of the HCN (E2, E4, E5, E6, E7), including the PHC, essential to constitute the Care Network for People with Chronic Diseases for being characterized as a coordinator of care, complementing interventions and overcoming fragmented and isolated actions (Doc 2[8]).

Through the Nursing consultation, nurses revealed that they seek to improve the management of CNCDs with a focus on risk factors for CNCDs such as nutrition, physical activity, lifestyle and self-care (E2, E3, E5, E6, E7, E9, E10, E11, E12). The professionals emphasized that the Nursing consultations are mainly aimed at breast and cervical cancer screening.

The care plan from the nursing consultation was considered a tool to monitor the health and disease status of people with CNCDs (E5, E10, Doc 2[8]). However, it is necessary that this process be dynamic, as is the life of the people and their context, so that the actions remain adequate and in the direction of reaching the agreed objectives, needing to be readjusted whenever necessary (Doc 10[16]).

However, it was found that, sometimes, the monitoring of CNCDs is not present in the daily routine of nurses (E2, E3, E6, E7, E8, and E12) due to excessive spontaneous demand and the dual function of the care and management positions in the PHU. Despite this, nurses revealed they understand the importance of this practice, highlighting the prevention and control of complications (E3, E8, and E10) and the empowerment of people with CNCDs in the search for quality of life (E3, E5, E6, E7, E9, E12).

The protocols were considered by the nurses as an instrument that enables communication between processes, obtaining a set of rules and procedures to be respected, being routinely used for the practice of monitoring CNCDs in the form of consultation or guidelines, manuals for chronic diseases and the Basic Care Notebooks of the Ministry of Health and Coren (SC) nursing protocols.

The nurses' best practices were described as guides for the Nursing activities focused on the care of people with CNCDs, being able to exercise monitoring with professional autonomy. In general, these documents present the care model adopted by the multi-professional team, punctually addressing the activities of each profession in accordance with their legal attributions. However, the protocols mentioned above help nurses to gather information about the morbidity and mortality of CNCDs and the actions that they should develop.

DISCUSSION

The purpose of surveillance and monitoring of CNCDs is to know the distribution, magnitude and trends of these diseases and their risk factors in the population, in addition to identifying their social, economic and environmental factors, in order to support planning, execution and evaluation of prevention and control.[25,26] Nevertheless, the participants in this study have

different interpretations about monitoring CNCDs and about the disease groups that constitute them.

It is possible to notice that most participants in this study still link CNCDs only to systemic hypertension and diabetes. Due to the great magnitude of these conditions in the population, *HiperDia*, as a government program linked to PHC, allows to continuously regulate the acquisition, dispensing, and distribution of medications, besides programming and implementing investigation and follow-up activities for people, generating a monitoring system.[27]

In this aspect, the *HiperDia* is evident in PHC activities, especially for nurses, revealing itself as a positive practice in the monitoring of CNCDs. Thus, we propose to overcome the traditional model of mechanistic care practices and recommend health promotion focused on the expanded look for the individual.[28]

For this, other practices that facilitate the monitoring of these diseases can be used within *HiperDia*, such as cardiovascular risk assessment[29] within the periodicity of nursing consultations and the epidemiological profile. This is capable of favoring the health surveillance process and the analysis of the quality of care offered in PHC,[19] going beyond the systematization of general indicators, to an opportunity to organize elements relevant to the monitoring of CNCDs.[30]

However, in the practice of nurses, the health education proposal present in *HiperDia* can still prioritize techniques limited to the transmission of knowledge, which tend to put the user in a passive position.[2] This hegemonic, prescriptive, and authoritarian practice, which is limited to behavioral change of biological aspects and of the health and disease process, results in low adherence of people to the knowledge and practices offered, generating frustration in the professionals and, consequently, damage to this care practice[31] with CNCDs. The groups that act in a horizontal, integrated manner and with a bond between community subjects and the team are prone to openness and popular education, with knowledge exchange among its members, obtaining better results.[28]

The pillars of health education are aimed at motivating self-care,[26] which must happen in an articulated manner with other segments of society. Thus, it is necessary to spread knowledge about the confrontations against the spread of CNCDs[27] in order to overcome the absence of people in the collective meetings suggested within *HiperDia* due to lack of access.

Another practice of nurses for monitoring CNCDs in PHC is conducting home visits. It is noteworthy that, although the data from this study highlight the work of nurses with the contribution of the CHAs in this activity, the home visit is a common assignment to all FHS professionals. Its proposal appreciates the proximity of professionals to the real family context and the various factors that influence the health/disease process, i.e., by performing the home visit as a care strategy, the professional can develop the promotion of health of individuals and families.[28]

Linked to this proposal, the active search for people with CNCDs is conducted in households by CHAs and, when necessary, by nurses. The CHAs were often cited by the nurses in this study as assisting in the process of monitoring CNCDs, highlighting the active search as a shared practice between professionals in health surveillance and planning, with the CHAs and nurses playing a leading role.[32]

In the results of this study, tele-monitoring was also identified as an active search practice. Although this practice was mentioned by only one nurse, it is important to emphasize the contribution of information technology in the monitoring of CNCDs as pointed out in the document analysis.

In this sense, several studies have pointed out that the use of this technology has been widely highlighted as a practice for monitoring CNCDs in European and North American countries.[33-37] In Brazil, it is noticeable the incipiency of studies that reveal this practice. However, this technology consists in a strategy of non-face-to-face follow-up of several formats, active or receptive, applied according to the priorities established by the health system.[37]

In PHC, the usefulness of tele-monitoring linked to persuasive technology, such as smartphone applications or other platforms and e-mails, allows continuous monitoring of clinical parameters and other relevant information to the health-disease process by the nurse and self-monitoring of the person about the CNCD. These resources facilitate people's access and also allow professionals to conduct remote educational actions.[37] These features are essential to the practice of CNCD monitoring in this context and suggestible to be adopted nationwide.

In this light, it is important to note that the term monitoring is often confused with tracking.[19] Screening consists of examinations or tests applied to healthy people, which implies that relevant benefits are guaranteed in view of the predictable and unpredictable risks and harms of the intervention.[19] Monitoring, on the other hand, consists of a systematic and continuous process of following up an intervention with a significant and periodic set of data and information that allows measuring, understanding, and evaluating the effects of a given intervention. Monitoring subsidizes the community's choices in the process of making timely decisions to achieve its results and impacts.[38]

With this effect, associating the most developed practices in the monitoring of CNCDs, the welcoming emerged from the discussions on the reorientation of health care, reorganizing the assistance in health services, producing changes in the technical-assistance model. The reception is a device of the National Humanization Policy and helps the professional to identify and solve the problem of the person who is received.[39] Thus, if a person with CNCD presents many exacerbations of signs and symptoms, it indicates to the nurse to review the therapeutic and care plan.

Thus, the Nursing consultation highlights the expected outcomes established in the care plan for people with CNCDs, supporting, in monitoring, whether these outcomes are being achieved.[37] From this perspective, the expanded clinic approaches beyond the disease, but cares about the subject in its individual context and in the collective sphere.[32] The nurse has his legal

normative support to act in the care of people with CNCDs, increasing the resoluteness of the health needs of these people, but, for this, it is necessary the institutional support to overcome the biomedical model.[30]

For health professionals, the reception meant a practice of welcoming the user through attentive attitudes and behaviors. The reception takes into account a comprehensive and holistic care, so that there is a responsibility of care, whether by solving problems or by the necessary referrals, through risk assessment and vulnerabilities, which can be classified into scheduled interventions ("non-acute") or immediate care, priority or on the day ("acute").[39] Thus, the reception can help monitor the aggravation of signs and symptoms, guiding the revision of the therapeutic and care plan.

Thus, the Nursing consultation allows for periodic monitoring of people with CNCDs.[37] In this perspective, the importance of the expanded clinic is highlighted, which approaches beyond the disease, but cares about the subject in its individual context and in the collective sphere.[32] However, despite the legal normative support for the nurse's role in the care of people with CNCDs, institutional support is still necessary to expand the scope of the nurse's role and increase the resoluteness of people's health needs.[30]

Studies have shown that the use of protocols supports nurses' decision making in the management of CNCDs, and allows for safer practice.[3,5,32,33] The CNCD mapping protocol provides nurses with a systematic process for disease definition, diagnosis and treatment under regular and specific conditions, follow-up, development and implementation, referrals and review criteria, patient orientation and education, implementation and evaluation of patients with CNCDs.[38]

In this research, different ways of monitoring CNCDs by nurses were revealed. Thus, ethical, theoretical-methodological and technical-operational dilemmas and issues are observed, which need to be explored. As seen, the growing demand of people with CNCDs affects the different practices of professionals to meet this context without harming the comprehensive care and the inertia of CNCD monitoring.

It was also possible to identify the interference of the biomedical paradigm in professional performance. Despite institutional efforts, this model of care still prevails in many spaces in health services.[40] Thus, this complex and challenging scenario cannot reduce the role of nurses in the face of the potentialities of their competence.[32]

Based on the findings of this study, other interpretations can be made, asking, for example, if it would be possible to expand, nationwide, different practices of CNCD monitoring in PHC by nurses. In this sense, a review of the set of documents available would be opportune, by the leaders of the different levels of management, in order to consider the already consolidated actions, adding more current practices, including telemedicine, tele-monitoring, and digital health education.

CONCLUSION AND IMPLICATIONS FOR PRACTICE

The results of this case study showed the nurses' practices for monitoring CNCDs in the context of PHC. The following were highlighted as monitoring practices: the HiperDia Group, health education, tele-monitoring, reception, home visits, nursing consultations, care plans, self-monitoring, and protocols.

By analyzing the CNCD monitoring practices performed by nurses in their daily routine in PHC with people with any of the diagnoses related to the premature mortality indicator, this study provides an opportunity for reflection and highlights the possibility of applying the results as a tool to better address CNCDs in contexts similar to the case studied. In this way, it contributes to the advancement of knowledge regarding the essence of nurses' practices in the monitoring of CNCDs, including the qualification of Nursing care and surveillance practices and health care.

This research is limited by its restriction to a single municipality (case) studied, which does not allow us to generalize, quantitatively, the results found to other realities. However, it is possible to extend the methodological application of the substantive approach to similar contexts in municipalities of the same size and coverage of the FHS.

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Data collection or production. Viviana Mariá Draeger. Selma Regina de Andrade.

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