Abstract Resumen

Objective: to analyze care coordination in the Primary Health Care services of the health care network from the perspective of nurses working in Family Health teams. Methodology: a cross-sectional study developed in 97 municipalities from the state of Santa Catarina, Brazil. A survey-type questionnaire was applied to nurses between May and August 2019. The data were analyzed by means of parametric calculations and quantification of absolute and relative frequencies. Main results: the defined flows for the referral of users between services were associated with the use of manuals (p=0.041), standard operating protocols (p=0.001) and Telehealth (p=0.036), supporting decision-making by nurses. The use of managerial technologies stood out, such as territory maps and information systems. Main conclusion: Regarding the defined flow for care coordination, nurses use manuals, standardized action protocols and Telehealth for decision making. Shared care and individual therapeutic projects are also practices adopted by nurses. It is necessary to advance in the effective use of the records in the clinical history, as well as in the knowledge of the profile of the users, in addition to the reasons for seeking health services.


Coordinación del cuidado: un análisis desde la perspectiva del enfermero de atención primaria

Objetivo: analizar la coordinación del cuidado en los servicios de Atención Primaria de la Salud de la red de atención de la salud desde la perspectiva de los enfermeros de los equipos de Salud de la Familia. Metodología: estudio transversal, desarrollado en 97 municipios del estado de Santa Catarina, Brasil. Se aplicó un cuestionario tipo survey a enfermeros entre mayo y agosto de 2019. Los datos se analizaron mediante cálculos paramétricos y cuantificación de frecuencia absoluta y relativa. Resultados principales: los flujos definidos para la derivación de los usuarios a los servicios estaban relacionados con el uso de manuales (p=0,041), protocolos operativos estándar (p=0,001) y Tele salud (p=0,036), como apoyo para la toma de decisiones de los enfermeros. Se destacó el uso de tecnologías de gestión, como mapas de territorio y sistemas de información. Conclusión principal: Para la coordinación de los cuidados respecto al flujo definido, los enfermeros utilizan manuales, protocolos estandarizados de actuación y Tele salud para la toma de decisiones. Los cuidados compartidos y los proyectos terapéuticos únicos también son prácticas adoptadas por los enfermeros. Es necesario avanzar en el uso efectivo de los registros en la historia clínica, y en el conocimiento del perfil de los usuarios, además de los motivos de búsqueda del servicio de salud.

Introduction

Guided by the National Primary Care Policy (Política Nacional de Atención Básica, PNAB), Primary Health Care (PHC) in Brazil is considered as the main gateway of people to the Unified Health System (Sistema Único de Salud, SUS) and as the communication hub of the Health Care Network (Red de Atención de la Salud, RAS), in addition to being in charge of coordinating and organizing care. For PHC to be effective in Brazil, the Family Health Strategy (FHS) seeks to reorganize the services based on a number of structural elements: access at the first contact, integrity, longitudinality, coordination, guidance for families and communities, and cultural competence.1,3

Care coordination consists in the PHC provider's ability to ensure continuity of the assistance provided in the service network through coordinated actions that favor its effectiveness. There are different definitions of care coordination in the literature. They involve elements that integrate services with health professionals, resorting to specific mechanisms and instruments to plan the assistance provided to the population, definition of communication flows and referrals, information exchange and guidance about and with the users, and follow-up of therapeutic plans and health needs in the territory. These elements ease the provision of continuous care at the right place and time.4,6

In order to collaborate with this organization, the Nursing work process aims at a three-dimensional action perspective: care, research/investigation, and management.7 In the scope of care coordination, Nursing consultations and referral of users to other services stand out among the specific functions of PHC/FHS nurses, respecting what is stipulated in the Law of Nursing Professional Practice.1

In the Brazilian scenario, there is a need to implement strategies that strengthen care coordination in the RAS, due to its potential to exert positive impacts on care resoluteness.8 Among these strategies we can mention Health Care Planning (Planificación de la Atención en Salud, PAS), a proposal that has been developed since 2007 by the National Council of Health Secretariats (Consejo Nacional de Secretarías de Salud, CONASS). It is a management and organization instrument for PHC and for Specialized Outpatient Care (Atención Ambulatoria Especializada, AAE) that adopts a methodology targeted at organizing the RAS services,7 allowing to establish flows with other points in the network, direct communication across teams, electronic clinical history, referral protocols, and other support services for clinical performance, such as Telemedicine.3

In this sense, a number of studies indicate the following as challenges for the consolidation of care coordination: fragmentation of the care network, communication deficits between different points or discontinuity of the communication processes, limited availability of specialized care, lack of integration of the electronic medical history, incipient participation of users in the process to coordinate their care, and absence of referral and counter-referral mechanisms in the care network.8,9-11

Professional nurses play a decisive role when identifying the care needs, especially in care coordination. It is necessary that these professionals recognize the elements that constitute care coordination to ensure comprehensive assistance and functionality of the RAS.12-13

Considering the context cited and the need to consolidate health actions that develop people-centered comprehensive care, the question is as follows: How do nurses characterize care PHC coordination in the RAS? Therefore, the objective of this study was to analyze care coordination in the Primary Health Care services of the care network from the perspective of nurses working in Family Health teams.

Method

A multicenter and cross-sectional study developed in two Health Macro-regions from the state of Santa Catarina: (1) Great West macro-region, consisting of the Westermost, West and Xanxerê health regions; and (2) Midwest macro-region, which comprises the Alto Uruguai Catarinense, Midwest and Alto Vale do Rio do Peixe health regions. A total of 97 (74.04%) municipalities out of the 131 that comprise both macro-regions took part in the study.

The study participants were nurses that work in Family Health teams (FHts). To such end, sample calculation was performed considering the nurses working in all 440 FHts from the macro-regions in April 2019,14 with 50% proportion, 5% error margin, and 95% confidence interval, thus estimating 205 participants.

In order to take part in the study, the nurses should have been working in the FHt for at least one year, such period was considered important to appropriate the work process, which is the inclusion criterion. The individuals excluded were those who were on leave or distanced from the service for any reason during the data collection procedure. The final sample consisted in 216 participants.

A survey-type questionnaire was used for data collection, structured in the Google Forms® tool and with variables that included the sociodemographic profile, the work process and the practices developed by the PHC nurses. The questionnaire was emailed to all the nurses comprising the sample, as well as to the Brazilian Nursing Association - Santa Caterina Section (Asociación Brasileña de Enfermería - Sección Santa Catarina, ABEn/SC) and to the Regional Health Management offices. Data collection was conducted between May and August 2019.

The Free and Informed Consent Form (FICF) was attached to the content of the email message. Accessing and answering the survey formalized their consent to participate. In order to directly invite them to participate in the survey, the nurses were contacted via telephone calls and, at that moment, the WhatsApp® messaging app was also used to send them the link to access the FICF and the questionnaire, according to the participants' preferences.

The Statistical Package for Social Sciences® 21.0 software was used for data analysis. Parametric calculations were used for the quantitative variables and quantification of absolute and relative frequencies was employed for the qualitative variables. The Chi-square or Fisher's exact tests were used to analyze the association of variables.

This study is part of the parent research project entitled "Nursing care and management as knowledge in the scope of Primary Care: Proposals for good practices". The research study respected the ethical aspects recommended by Resolutions No. 466/12 and No. 510/2016 of the National Health Council. The project was approved in November 2017 by the Committee of Ethics for Research with Human Beings of the University of the State of Santa Catarina, under opinion No. 2,380,748.

Results

The mean age of the nurses that took part in the study was 36 years old, with 94% (n=203) predominance of the female gender when compared to the male gender (n=13; 6%). In terms of schooling, 80.6% (n=174) of the participants had...
completed some specialization course, 0.5% (n=1) took part in a residency program, and 5.6% (n=12) attended a Master’s degree course.

The nurses’ working time in the FHts presented a mean of 8.5 years (interquartile range: 4; 13), whereas the median of the working time in the team to which they were linked at the data collection time dropped to 4.5 years (interquartile range: 2; 9).

In addition to the data that characterize the profile of the nurses interviewed, other data were collected about care coordination in PHC. In relation to care planning, in terms of the knowledge they had about the profile of the users treated in their coverage area, slightly more than half (n=120; 55.6%) asserted knowing it in full, whereas 27.3% (n=59) had a map with no risk zones delimited and 3.2% (n=7) had no map at all. Information systems are used by most of the nurses (n=117; 54.2%) to jointly plan and evaluate the actions developed by the multidisciplinary team, followed by 41.7% (n=90) that asserted using them only in some specific cases and by 4.2% (n=9) that reported not using them.

Regarding the definition of flows to refer people to other points of the care network, 88.4% (n=191) of the nurses gave positive answers, 80.6% (n=174) stated receiving information about people coming from other points, whereas 94.4% (n=204) indicated that they provide information to other points of the care network.

Information exchange with the users regarding the guidelines about care continuity is responsibility of the FH nurses; 76.4% (n=165) stated that they always instruct the users whereas 23.6% (n=51) provide them with guidelines when necessary.

Regarding follow-up of the therapeutic plans, the data about shared care were considered, where 92.1% (n=199) of the nurses stated performing it together with other professionals from the FH or the NASF-AB, as well as those about the Individual Therapeutic Projects (ITPs), performed by 64.9% (n=140) of the nurses. Of these, 30.6% (n=66) does so with other professionals and with the users and 34.3% (n=74) develop them with other professionals from the team, without any participation of the user. Slightly more than one third of the interviewees (n=76; 35.2%) states that such activity is not performed in the work routine.

When the nurses were asked about the reasons why the users resorted to the BHU seeking care, chronic conditions were the main cause (n=127; 58.8%), followed by acute situations (n=82; 38.8%) and, to a lesser extent, scheduled consultations (n=9; 4.2%), referral to other services (n=6; 3.2%) and mental health (n=5; 2.3%).

The parametric analysis of the study variables showed that the existence of a defined flow to refer the users to other points in the care network was significantly associated with the use of manuals (p=0.041), SOPs (p=0.001) and Telehealth (p=0.036) as information sources for decision-making by nurses (Table 1).

### Discussion

The territory, which is the geographical space for health production and presents varied characteristics regarding social, political, geographical and epidemiological aspects, is a fundamental concept both for care coordination in the FHts and for implementing the PNAB in Brazil. The territorialization process seeks to understand how the social actions are organized from the territorial point of view, in order to promote bonds and belonging relationships between the population and the professionals working in the services. Attachment of the territory can be eased by means of some tools, such as the elaboration of maps that delimit risk and vulnerability, thus providing a view of the needs and, consequently, scheduling the health actions. The results of this study confirm that most of the teams use this technology in their work process.

Table 1. Associations related to the existence of defined flows for the management of users in the care network and Use of information sources for decision-making, according to nurses from the FHs belonging to the SC Great West and Midwest micro-regions, and Use of information sources for decision-making, 2019. (n=216)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Existence of defined flows for referring users in the Health Care Network</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes n (%)</td>
<td>No n (%)</td>
</tr>
<tr>
<td>Manuals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>131 (60.6)</td>
<td>12 (5.6)</td>
</tr>
<tr>
<td>No</td>
<td>60 (27.8)</td>
<td>13 (6.0)</td>
</tr>
<tr>
<td>Telehealth-SC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>111 (51.4)</td>
<td>9 (4.2)</td>
</tr>
<tr>
<td>No</td>
<td>80 (36.7)</td>
<td>16 (7.4)</td>
</tr>
<tr>
<td>Standard Operating Procedures</td>
<td></td>
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</tr>
<tr>
<td>Yes</td>
<td>133 (61.6)</td>
<td>9 (4.2)</td>
</tr>
<tr>
<td>No</td>
<td>58 (26.9)</td>
<td>16 (7.4)</td>
</tr>
</tbody>
</table>

Knowing the profile of the users treated by the health professionals in PHC is an important element for care coordination. In this context, the communication, listening, observation and interaction process between users and health professionals stands out. The data of this research indicate that approximately half of the participants are unaware of such profile, which can weaken certain care coordination elements, such as planning of the assistance to be provided. It is known that there are some obstacles such as lack of time, high demand and limited understanding about the importance of teamwork, which lead to adopt scarcely resolute courses of action and impair the relationship between users and health professionals. It is necessary to rethink this situation since, in order to coordinate care, it is fundamental to know the people from the territory. Lack of knowledge about the profile of the users indicates that the institutional decisions about what deserves attention are based on biological factors, which suggests a subordinate condition of nurses that only recognize their professional identity when they align their job with these factors. Using information systems to plan and assess in a joint manner the actions performed by the health team is also a strategy for care coordination in PHC. The experiences in Latin America show that the use of information systems can favor shared care in the RAS.

The Chilean government has advanced in the standardization of a single clinical history, which is informed through computerized systems; however, advances are still necessary in the integration of the medical records, allowing access to the courses of action, tests results and diagnoses made in other services. The health sector makes intensive use of the information and is extremely influenced by it, as the clinical practice revolves around data, information and knowledge. In the context under study, most of the nurses use such systems only when it is necessary or do not use them at all; this can have repercussions on organization of the work process and on weakening of care coordination, or even reflect the lack of infrastructure in the services to implement the computerized systems.

The Brazilian government is investing in clinical data exchange as a tool to ease care continuity with the creation of the National Health Data Network (Red Nacional de Datos de Salud, RNDS). This network is a...
national repository that seeks to gather the clinical data sent by the health services of different complexity levels, whether public or private. For the time being, the RNS is in its implementation phase and is focused on receiving data related to COVID-19 vaccination and tests.

PHC plays a fundamental role in care coordination because it acts as a preferential gateway to other services of the RAS. The process for communication and for sharing care among different actors can be structured from the definition of flows and mechanisms for information exchange, as is done in the macro-regions under study. An intervention to ease care coordination in the health teams was implemented in Canada, by establishing communication protocols and lines between the care network services.

The use of flowcharts as a tool to refer people within the RAS was observed, which strengthens communication and information exchange between health professionals and users, a determining factor for care continuity, especially in terms of care guidelines and referrals between the services. Absence of guidelines contributes for the users to feel frustrated and insecure in relation to continuity of their care. A number of studies show that nurses play a key role in transitional care between the health services, acting in planning, social rehabilitation/reinsertion, education in health and longitudinal follow-up.

The Nursing work is targeted at holistic care, with people-centered approaches and a focus on health promotion, cure for diseases and rehabilitation. In the multidisciplinary team, this knowledge joins that of other professionals to provide care based on the individual's values, with specific care goals, preferences and needs. To such end, it is fundamental to monitor the ITP and implement shared care. Although the nurses indicated that they performed such activities, it was noticed that, in terms of the ITP, little is shared with the team and the user; this implies fragmented care, which is not in line with the ITP premises, which propose courses of actions that are articulated and discussed by the team. In this sense, a collaborative practice will be possible provided that there is exchange of experiences between different health professionals and the users of the service, their families and the community, aiming at comprehensive care.

With this same approach, in Brazil the Paidéia Training and Support methodological proposal is also in force for co-management of the work and health networks, as a democratic possibility of sharing power in the collective spaces.

Another study that analyzed care coordination in PHC shows that there are a number of specificities regarding the work performed by the professional categories, where physicians and nurses are responsible for the articulations with the services external to the BHU, whereas Nursing Technicians and Community Health Agents participate in care coordination within the unit, which contributes to defining the courses of action, flows and referrals, both in shared care and in the team meetings.

Understanding the reasons why the users seek the BHU for care is fundamental to promote integrity and continuity of care. Chronic conditions predominate in PHC, which signals the need to plan educational actions that exert an influence on courses of action and health conditions related to the risk factors, thus improving lifestyle, health care and self-care.

This fact reinforces the need to strengthen the RAS with PCH as organizer of this network. A fragmented system prepared to treat acute and chronic conditions reflects the existing inconsistency between the health situation presented and the response offered by the health systems. It is necessary to promote changes in the health system, including strengthening of the RAS and elaboration of a population-based model both for the care of chronic conditions and for management. The PHC proposal offers a solution to this problem as an important instrument for management of the RAS. In addition, there are support networks that can be considered as essential elements for adherence to the treatment and for the well-being of users with the same disease, as they involve social groups such as groups of users, where they feel welcome and which favors development of interventions for improving quality of life.

This study presents aspects inherent to a given reality, seeking to contribute to the identification of outstanding topics or that can lead to the elaboration of comprehensive and continuous care, based on PHC, presenting important factors to strengthen care coordination. Despite that, it is acknowledged that the territorial scope can be considered a study limitation.

Conclusions

The analysis of care coordination in the PHC services from the perspective of nurses working in these health services allowed inferring that measures such as knowing the users' profiles and defining flows in the RAS are important resources, linked to the use of management technologies such as maps of the territory with risk and vulnerability zones delimited, as well as information systems to plan and evaluate the ITP actions and follow-up, strategies such as shared consultations also seem to favor performance of the teams.

As shown in other research studies conducted in the Latin American context and in other countries that have public systems operating in PHC through multiprofessional teams, it is necessary to pay attention to agenda topics, demands, and even to the lack of professional recognition about the importance of teamwork, which can lead to scarcely resolute courses of action and impair the professional-user-family relationship.

Advances are necessary in the effective use of medical records, especially electronic ones, which will allow the professionals from the network to access clinical courses of action and data, in order to qualify care coordination. In addition, interrelation and alignment between the users' reasons to resort to PHC seeking care and the use of instruments, strategies and information sources are fundamental to contribute to organizing care continuity and integrity.

Using technologies in health care within PHC, overcoming the existing limitations in this context, has a potential for a relevant qualification that must be encouraged.

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Bibliography


