

Nursing undergraduates' understanding of Health Care Networks

Compreensão de estudantes de enfermagem sobre as Redes de Atenção à Saúde

Comprensión de los estudiantes de enfermería sobre las Redes de Atención a la Salud

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ABSTRACT

Objective: to examine undergraduate nursing students' understanding of Health Care Networks (HCNs). **Method:** in this exploratory, qualitative descriptive study, semi-structured interviews were conducted with 27 Nursing students at a federal University in southern Brazil between August and September 2018. **Results:** the interviews revealed that the students' knowledge related to the HCNs' concept and purpose, beyond the communication weaknesses and users' lack knowledge as obstacles to effective HCNs, the difficulty in seeing nurses' roles in the various network services, and perceived fragmentation in the training process. **Conclusion:** the study contributed to discussion of inclusion of students in HCRs, with a view to meeting the educational requirements designed to favor implementation of the national health system (SUS) and the HCNs.

Descriptors: Health Systems; Unified Health System; Students, Nursing; Education, Nursing.

RESUMO

Objetivo: analisar a compreensão de estudantes de graduação em enfermagem sobre as Redes de Atenção à Saúde. **Método:** estudo descritivo e exploratório, qualitativo, realizado com 27 estudantes em Enfermagem de uma universidade federal do sul do Brasil, por meio de entrevistas semiestruturadas realizadas entre agosto e setembro de 2018. **Resultados:** foi evidenciado o conhecimento dos estudantes em relação ao conceito e objetivo das Redes de Atenção à Saúde, a identificação de fragilidades na comunicação e a falta de conhecimento do usuário como obstáculos na efetivação das mesmas, a dificuldade em ver a atuação do enfermeiro dentro dos variados serviços das redes e a percepção sobre a fragmentação do processo de formação. **Conclusão:** o estudo contribuiu para a discussão sobre a inclusão dos estudantes nas Redes de Atenção à Saúde, com intuito de superar as exigências educacionais que buscam favorecer a efetivação do Sistema Único de Saúde e das Redes de Atenção à Saúde.

Descritores: Sistemas de Saúde; Sistema Único de Saúde; Estudantes de Enfermagem; Educação em Enfermagem.

RESUMEN

Objetivo: analizar la comprensión de los estudiantes de enfermería de pregrado sobre las redes de atención de la salud (HCN). **Método:** en este estudio exploratorio, cualitativo descriptivo, se realizaron entrevistas semiestructuradas a 27 estudiantes de Enfermería de una Universidad federal del sur de Brasil entre agosto y septiembre de 2018. **Resultados:** las entrevistas revelaron que los conocimientos de los estudiantes relacionados con el concepto y propósito, más allá de las debilidades de comunicación y la falta de conocimiento de los usuarios como obstáculos para una HCN eficaz, la dificultad para ver el rol de las enfermeras en los distintos servicios de la red y la fragmentación percibida en el proceso de formación. **Conclusión:** el estudio contribuyó a la discusión de la inclusión de los estudiantes en las HCR, con miras a cumplir con los requisitos educativos diseñados para favorecer la implementación del Sistema Nacional de Salud (SUS) y las HCN.

Descriptorios: Sistemas de Salud; Sistema Único de Salud; Estudiantes de Enfermería; Educación en Enfermería.

INTRODUCTION

Health care systems encompass activities that are developed by different institutions, the main purpose of which is to promote, maintain, and recover the health of a population. These systems consider societal health needs to provide services intended to meet its demands and priorities¹.

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The fragmentation of the health system in Brazil takes different forms, whether by a lack of service coordination, multiple structures providing the same type of service and healthcare actions, by a lack of coherence or even antagonist relationship between services, the fact that practices are sometimes performed in inappropriate locations, difficult access, or lack of care continuity, among other aspects. These factors result in the delivery of healthcare of low technical or humanistic quality with poor problem-solving capacity, resulting in the inefficient and irrational use of the resources available².

The fragmentation of the health system, associated with the Brazilian demographic and epidemiological transition, increase in the number of infectious and chronic diseases, and diseases caused by external causes, hinder the delivery of integral, universal and equitable health care within the scope of the Brazilian Unified Health System (SUS)¹.

Considering the difficulties accruing from the fragmentation of the health services in the SUS and seeking to overcome this problem, the Brazilian Ministry of Health published Decree 4.279 in 2010, establishing the guidelines for the organization of the Health Care Networks (HCN). The Pan American Health Organization emphasizes that HCN are composed of arrangements that can actively contribute to the delivery of continuous, integral, and quality care to the population¹, being essential to overcome the fragmentation of care and meet the population's needs³.

Putting HCN into operation, however, is a challenge for those working within SUS. Nurses stand out as they contribute to the strengthening of health service quality, playing an essential role in recognizing needs concerning the coverage and implementation of health actions, considering the different contexts and needs of populations.²⁻³ To effectively play this role, however, nurses need to have specific knowledge regarding HCN, enabling them to recognize weaknesses and contribute to the reorganization of the healthcare model within SUS⁴.

Nurses play a relevant role in the consolidation of HCN⁴ and, for this reason, are required to have skills, competencies, and specific knowledge. Thus, receiving a high-quality education is essential for these workers to meet the population needs.

The training of nurses in Brazil follows the National Curriculum Guidelines for Undergraduate Nursing Programs published in 2001, which are intended to standardize the quality of training programs by encouraging higher education institutions to adopt liberating and problematizing teaching methods that promote a holistic view of individuals and society⁵, thus enabling the delivery of integral health care with work developed in multiprofessional teams. Hence, this study is expected to facilitate the understanding of the training process provided to future nurses who will work in HCN, aiming to support discussions concerning teaching projects and encourage new studies on the topic.

Considering that the National Curriculum Guidelines for Undergraduate Nursing Programs were in effect in 2001, the intense transformations that took place within SUS from that year to the current time, especially in terms of structuring the Health Care Network and the dynamics of the education process of nurses to work within the SUS, this study presents the following guiding question: how do undergraduate nursing students understand Health Care Networks? This question was intended to analyze the understanding of nursing students regarding the Health Care Network.

THEORETICAL FRAMEWORK

The Health Care Network is composed of concentrated and dispersed elements linked by healthcare services and support systems that need to be in balance to enable access to services¹. Access is the capacity of the health care system to meet the health needs presented by a given population, which includes accessibility, provision, and territorialization of services, among other aspects⁶.

One of the main authors writing about this topic states that, for the sake of effective, efficient and quality organization of services, the following should be observed: economies of scale, availability of resources, quality of and access to services; horizontal and vertical integration of services; replacement processes; health territories; and levels of complexity⁷.

Therefore, in addition to the quantity and quality of services, the population needs to have proper access to health services. From this perspective, the Ministry of Health recommends strategies to enable and ensure access to services, especially among those who need the services most and face problems such as living distant from health facilities or have cultural, social, gender, or ethnic barriers that need to be deconstructed⁸.

Note that even though Primary Health Care (PHC) is the entrance door to the health system, it is not less complex than medium and high complex services, considering that more than 85% of health problems are resolved within the

PHC scope. That is, even though the secondary and tertiary care levels present greater technological density, they are not more complex. From this perspective, the hierarchical conception needs to be replaced with the conception of polyarchival health care networks, abandoning the idea of a vertically organized hierarchical system and vertical relationships, adopting an understanding of horizontal polycentric networks¹.

METHOD

This qualitative, exploratory, and descriptive study addressed students in the 9th and 10th semesters of the undergraduate Nursing program at a federal public university located in the South of Brazil.

All the students regularly enrolled in at least one supervised training course of the undergraduate Nursing program and who had attended all the program's theoretical and practical courses were included in the study. The exclusion criterion was being absent at the time and place of data collection.

Data were collected between August and September 2018 through individual semi-structured interviews, which were audio-recorded and lasted approximately 20 minutes. The students' interviews were transcribed and identified with the letter "S" (Student) followed by a sequential number (S1 to S27) to ensure the confidentiality of the participants' identities.

Data were submitted to Discursive Textual Analysis, which is based on a self-organized process of structure and understanding, in which new perceptions emerge through a sequence of three stages: deconstruction or unitarization of texts; establishment of relationships or categorization; and capturing of new emerging communication⁹. Unitarization is the process in which the material is fragmented. It results from exploring the text with the purpose to find units of meaning. Categorization refers to the classification of the text into categories, considering the connection between the base units. Finally, communication is the result of the previous two units and reveals the understanding of the whole⁹.

The study was approved by the Institutional Review Board (Opinion Report 163/2018 and CAAE: 92504218.2.0000.5324). All participants signed free and informed consent forms.

RESULTS AND DISCUSSION

Four categories emerged from the discourse analysis: Understanding the HCN and its contribution to the SUS; Factors that hinder the effective implementation of HCN; The practice of nurses within the HCN; Training addressing the HCN: Weaknesses and Proposals.

Understanding the HCN and its contribution to the SUS

Students understand that the HCN refers to different places where health care is provided, in which there is a connection between the different services and a way to organize processes to provide integral, continuous, and quality care. The participants' perception of HCN is in line with the concept proposed by Mendes¹, as the following excerpts show:

It is really a network with structures that need to be interconnected to provide full healthcare to individuals (S18).

The Health Care Network is like, a way to put the Unified Health System into operation, to ensure integral access, and make sure that all services are provided to citizens (S23).

The discourses reveal that the students are aware that HCN has to be interconnected and is implemented across levels of complexity, proposing actions that promote health and prevent and treat diseases, which is also described in the model proposed by Mendes¹ and in other studies addressing the topic¹⁰.

The Networks are, for instance, primary care, secondary and tertiary care. The primary care service refers to the UBSs (PHC units), the secondary care service refers to UPAs (Emergency Services), and the hospital complex composes the tertiary service (S6).

It is a system that provides medium, low, and highly complex health services (S11).

Regarding how the services within HCN are accessed, the nursing students report a hierarchical process and organization that considers the level of service complexity, in which PHC is the main entrance door. The HCN model, however, shows that the idea of a system that is vertically organized and vertical relationships need to be replaced with horizontal polycentric networks⁷.

The [entrance] door is the PHC. The PHC gives foundation to everything else, if it is better implemented, hospitals would not have such a large demand (S17).

It is a public service that should begin with primary care, with primary care within the community, and then be referred to other levels of care (S22).

The students consider that the organization of the health system in a network model decreases the fragmentation of care, and the dynamic functioning of the HCN is the element that enables the principles of SUS to be effectively implemented. To facilitate access to services and provide integral health care, the way health facilities are distributed throughout regions needs to be planned according to the level of complexity and the needs of the population in a given location^{1,11}.

It contributes to the organization of the system and the continuity of care (S7).

I guess it contributes to ensuring integral care, because people will be able to access all healthcare levels, across all the services. And if it works, if the services are interconnected, patients' information will be shared throughout the entire Network (S11).

According to the students, the strengths of HCN also include how well some services meet the health needs of communities, how near they are within the territories, which allow the effective implementation of health promotion and disease prevention actions. Territorialization organizes referrals within the HCN, encouraging the proper reception of patients into the system, without overwhelming only one portion of the system¹².

Less money would be spent on basic things. The money saved could be invested in the community, in projects that would meet the community's needs, preventing these individuals from going to hospitals, which results in large expenditures with hospital costs (S2).

It would prevent patients from overcrowding hospitals. Sometimes patients have a very simple condition that could be resolved within PHC, or in a 24-hour service or emergency service, but they end up going to a hospital (S25).

I guess it would decrease the high number of hospitalizations (S26)

Factors that hinder the effective implementation of HCN

The nursing students consider that miscommunication between the services causes the fragmentation of healthcare or loss of information, preventing integration that would favor care delivery. One study conducted with PHC workers and also those working at the tertiary level shows that workers also recognize that there is a lack of connection and intercommunication between the services within HCN¹¹ and another study reports that PHC workers feel powerless when facing restrictions imposed by these weaknesses¹³.

[...] There are many problems; the HCN doesn't work because the system is not interconnected (S19).

In this flow, we only see the disease, the patient is sick, treats the disease, and goes home, but we do not see the continuation of this process (S1).

To overcome these difficulties, Information and Communication Technologies (ICT) are highlighted, such as the use of computer systems to share data in the medical files of SUS patients. ICT favors workers' active participation at the different care levels, ensuring integral and organized care¹⁴.

If only we had a computer system in which all areas could access the medical files of patients; the PHC would have free access, from PHC units to hospitals (S18).

Another aspect considered to hinder the effective implementation of HCN was the lack of knowledge among the population regarding the way it is structured and the flow of services. In addition to having problems understanding the way the services function, the population also has to deal with delays in making appointments via PHC, which coupled with the biomedical model hinders preventive and health promotion actions, so that patients seek specialized services and specific treatments directly¹⁵.

Patients lack information that they need to first seek the PHC rather than going directly to a hospital (S7).

To deal with the weaknesses previously mentioned, nursing students suggest providing training to workers regarding the HCN legislation as well as to more actively teach the population. Health professionals' lack of knowledge regarding actions and services provided¹¹ results in less than perfect reception of patients and also in not referring patients to the most appropriate services, negatively influencing the delivery and continuity of care¹⁶.

Nurses have to be familiar with the decree [4,279 – concerning the establishment of HCN] and know how to connect it with all the programs, hospitals, and communities (S2).

To train nurses so they know how to instruct patients in the community, in the region, so they know for instance: 'here this is how we provide care, so now you have to go to that hospital.' So, I guess they lack training (S6).

The practice of nurses within the HCN

According to the students, nurses play an essential role in establishing bonds with the patients in the network and are perceived as a reference for care, especially within the PHC. The reason is that nurses in the PHC are closer to patients and have the autonomy to perform actions beyond the delivery of care, working in multi and interdisciplinary teams^{17,18}. Students have difficulties understanding the role of nurses within HCN and their actions in the various services proposed by the HCN. In this sense, the role of nurses is more clearly understood when considering the Thematic Networks, which are intended to meet the health needs of the population².

Nurses are essential workers in all these places, both in hospitals and in PHC (S1).

Nurses are the entrance door to PHC, for care to take place. Especially in PHC, nurses serve as a reference for care, for the establishment of bonds, a reference for patients to start their journey within the network (S22).

Reinforcing the previous statements, the students consider that the work of nurses within the HCN is essential for health care to be effectively delivered. Note that the prevention of diseases and health promotion are actions that ensure the delivery of integral care and greater problem-solving capacity, referring patients to the tertiary level of care only when inevitable. One study reports that the students perceive the link between nurses and the community as being fundamental for providing integral care¹⁹.

Nurses have to be sensitive to see when there is something they can resolve before getting to the point when hospitalization is required (S5).

I see nurses as the main workers in direct contact with patients. They can see what patients need both in terms of preventive measures and treatment (S23).

Even though the participants did not express deep knowledge of the practice of nurses in the management of HCN, they mentioned the importance of nurses' work to organize and make it functional, so that HCN fulfills its role. Nurses stand out in preventive actions and health promotion, also performing educational, administrative, and managerial actions¹⁷, necessary to consolidate and effectively operate the HCN.

Nurses contribute by facilitating communication between the levels of care and with the health department (S7).

Nurses need to know the Network, learn how it is structured, its dynamics, and referrals. Because I think that we have the responsibility to ensure its functioning. [...] We have the responsibility to instruct the patients and the employees about the way it works (S11).

Training addressing the HCN: Weaknesses and Proposals

The reports show that there is great emphasis on training for nursing care in the hospital setting, with little emphasis on training professionals to work in the other services that compose the HCN. This context does not enable students to be sufficiently exposed to how the network is formed, leading to the acquisition of fragmented knowledge concerning management/functioning. Hence, the training provided to future nurses does not seem to encourage them to reflect upon their role as health agents, that is, training is based on learning and developing technical actions²⁰.

I see the focus is on high complexity, our training is very much directed to the hospital setting and we see little about PHC, let's see now in the 10th [semester]. Regarding health surveillance sectors, administrative sectors, which do not involve direct care provided to patients, it is very superficial (S7).

The students show that their training does not enable them to have a broad view of the services that integrate the HCN. Additionally, they report that academic training provided within the PHC differs from the actual nursing practice in this setting. For this reason, the students do not feel sufficiently prepared to work within the PHC from the perspective of HCN after graduation. The training should provide support for students to become generalist, humanist, reflexive and questioning nurses, who defend the principles and guidelines of the SUS, and mainly ensure the delivery of integral care²¹.

[...] we experience the PHC, but we do not do what nurses do, we see little of their practice (S27).

[...] If I graduate and go work in a unit [PHC unit], I won't know what I have to do, how to refer patients, what kind of guidance I'm supposed to give (S16).

Given the previous discussion, to overcome fragmentation, strengthen training and prepare students to work within the scope of HCN, the training process should encourage discussions about HCN among the courses provided, and connect teaching and practice. In this context, the new models of healthcare should support and direct the training of nurses capable to employ their knowledge in an interdisciplinary manner, centered on integral care at all levels of care^{22,23}.

We have one course, perhaps two courses that talk about it, it should be cross-courses, all courses should address it, at least something about it [about HCN] (S3).

We had a course that talked about SUS at the very beginning of the undergraduate program. It should be addressed over the entire program so we would adapt and understand it better (S24).

This study's limitation refers to the fact that it was conducted with a sample of students attending a single teaching institution, which does not allow the generalization of results.

CONCLUSION AND IMPLICATIONS FOR PRACTICE

The students presented partial knowledge regarding HCN and showed difficulty understanding the model of organization proposed by HCN, based on horizontal polycentric non-hierarchical networks. Despite this, they showed knowledge regarding some key points such as the concept and objective of HCN; clarity about the connection established between the levels of health care, identifying PHC as the entrance door to the system. Additionally, they were able to perceive weaknesses in the HCN structure, which result in disintegrating the system and fragmenting care, weakening the implementation of HCN in its role within SUS.

The students' perception regarding lack of knowledge of the role of nurses in the different services within HCN is a consequence of fragmented training, which gives priority to teaching that is based on healing actions rather than effectively addressing the inclusion of students into the system, or lack of National Curriculum Guidelines for the nursing program that are consonant with HCN. These aspects weaken theoretical-practical knowledge at the different levels of care, resulting in the training of workers insufficiently prepared to work as agents who collaborate to concretize HCN.

This study enabled visualizing how the training provided to nursing students addresses the Health Care Network. These findings can support professors and students to reflect upon the establishment of teaching projects that meet educational demands and can contribute to the implementation of SUS and HCN.

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