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Nursing Care Systematization: Applicability to Primary Care

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ABSTRACT. Nursing Care Systematization (NCS) is an organized and systematized process that concerns nursing professionals who provide quality assistance, being a mandatory tool in all health centers. Despite this factor, there is a visible resistance from nursing to the operationalization of a systematized care. Thus, the present study aims to analyze the applicability of nursing care systematization and the knowledge that primary care nurses have of this process. This is a descriptive, cross-sectional study with quanti-qualitative approach, conducted with nurses working in primary care teams from a regional health zone in the state of Paraná, Brazil. Out of the 44 participant nurses, only 20.5% claimed to take all steps in the nursing process during their care practice, and 43.2% do not know about the Resolution of the Federal Nursing Council that addresses NCS application. This low NCS applicability is worrisome, since it is related to the quality, resolution and security of care provision. The applicability of the systematization within the assessed teams is quite fragmented and small; besides, their NCS knowledge is insufficient considering that this is such a relevant tool to a nurse's professional practice. It is possible to notice numerous fragilities and difficulties in the application of NCS to primary care, with highlight to time availability, overworked nurses, and need for training.

Keywords: primary health care; nursing assessment; nursing process; nursing professionals.

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Introduction

For many years, nursing, in connection with medicine, has taken on a characteristic of immediate and cure-oriented work, with care centered on disease and its complications, promoting health care actions in an intuitive rather than systematized manner (Dutra, Soares, Meincke, & Matos, 2016). With the advancement of education, the science of nursing took a different course from practical reflections, reaffirming a comprehensive, resolutive and quality care to individuals, on the basis of systematization (Tannure & Pinheiro, 2011).

Changes and the reorganization of the public health model in Brazil have brought about a large field of practice for nursing professionals, who have become responsible for nursing teams, assistance and service management, that is, perform a variety of activities, from administrative to assistance-oriented, in order to ensure the quality and wellbeing of individuals (Caçador, Brito, Moreira, Rezende, & Vilela, 2015).

Nursing, from its very beginning, is aimed at the individual who needs care, to whom it must provide a comprehensive and unique assistance with practices that promote health and prevent diseases and complications, as well as ensure diagnosis and treatment at an opportune time (Tannure & Pinheiro, 2011). Thus, nurses, when performing their professional duties, must be anchored on a scientific work methodology capable of organizing and systematizing their activities in order to improve the quality of care (Ferreira, Périco, & Dias, 2018).

To support the work process of nursing professionals, the Nursing Care Systematization (NCS) was created, which is a scientific methodology that subsidizes actions taken on patients by means of the nursing process. This systematization organizes the professional work concerning method, staff and instruments, enabling the operationalization of the Nursing Process (NP) (Tannure & Pinheiro, 2011).

It is worth noting that NP and NCS are different concepts, with the former being a methodological tool used for organizing and systematizing assistance, and the latter being a work method consisting of five inter-related steps along with a theory that guides care planning (Souza et al., 2020).

The Brazilian Federal Nursing Council standardized the NCS through Resolution No 358/2009, setting forth that the nursing process is a mandatory and exclusive action of nurses and must be instituted in all

health centers, be they public or private, that provide health care using this professional (*Conselho Federal de Enfermagem* [COFEN], 2009).

It is worth highlighting that the nursing process is organized by inter-related and recurring stages, comprehending nursing history, nursing diagnosis, nursing planning, and nursing implementation and assessment. NP application allows nurses to identify the needs of users and required interventions, in addition to enabling discussions around therapeutic practices, ensuring a comprehensive, resolutive and quality care (COFEN, 2009; Tannure & Pinheiro, 2011).

Analyzing the range of a nursing professional's practice as to assistance provision, it is possible to state that the systematization of care is a professional tool capable of promoting a holistic care geared not only to a patient's complaints but also to the assessment of the general operation of the organism towards health promotion and disease prevention (Garcia, 2016).

In this sense, a scientific practice of care, that is, the application of care by means of NCS, is a way to boost and improve the professional identify context, bearing in mind that nurses, despite the space they have conquered, still experience moments of little visibility. For this reason, they need to understand that the NP is imperative for their professional autonomy and to increase the perceptibility of the category, in addition to ensuring the quality of care to individuals (Costa, Dias, Cerqueira, & Peixoto, 2018).

The Nursing Process is the main axis of professional practice applicability (Garcia, 2016), since nursing care without NCS becomes fragmented, causing a higher likelihood of errors, less effective diagnoses, reduced service on the part of the nursing team, less security in care practices, as well as a more restricted assessment on the needs of patients, thus interfering with the quality of assistance (Giehl, Costa, Pissaia, & Moreschi, 2016).

It is worth pointing out that NCS is a fundamental process in Primary Health Care (PHC), as the latter is the main gateway for users of the Brazilian Unified Health System (*Sistema Único de Saúde* [SUS]), in which the role of nursing has been consolidated and broadened (Caçador et al., 2015; Damaceno, Bandeira, Hodali, & Weiller, 2016).

Being a gateway, it also leads to health programs in the public system, in which nursing effectively operates in all activities offered by PHC; thus, the implementation of NCS would be a tool capable of promoting higher quality and scientificity to provided care (Wanzeler et al., 2019).

Due to a constant concern over assistance quality in the nursing field within PHC, the applicability of NCS to primary health teams is essential to ensure a comprehensive, resolutive, humanized and quality care, in agreement with basic health care principles (Campos et. al., 2014).

The implementation of NCS in the Family Health Strategy (FHS) is imperative for compliance with the principles of the program, bringing improvements to users and their families, as well as establishing bonds for an assistance at individual, familial and community level (Barros & Pereira, 2016).

Notwithstanding the importance of NCS applicability and professionals recognizing the relevance of the process in organizing work, there is a clear resistance from nursing against the operationalization of a systematized care (Silva et al., 2016).

In light of the foregoing, the development of this research is justified by the importance of operationalizing NCS in all spaces of assistance, especially in PHC, since this is a mandatory process capable of guiding professional care and render it more scientific. The objective of the present study is to understand the applicability of NCS and the knowledge that nurses working in primary health care have of this process, in addition to investigating whether nurses have difficulties implementing the NCS.

Material and methods

This is a descriptive, cross-sectional study with quanti-qualitative approach. This methodology was chosen because the qualitative research is an adequate study type for those seeking to understand specific complex phenomena in depth, and the quantitative approach deals with variables expressed as numerical data, being more appropriate for planning collective actions, since its results can be generalized (Santos et al., 2017).

The target population was composed of nurses working in primary health care teams in the cities that make up a Regional Health Zone in the state of Paraná. Said zone cover 21 municipalities, counting with 48 urban primary health care teams, and 22 rural primary health care teams, totaling 73 assistance nurses.

The inclusion criteria used were: assistance nurses working in PHC in the area covered by the studied Regional Health Zone. The research excluded nurses with management and coordination roles, not directly caring for patients, as well as those on leave during the conduction of the research.

Data were collected online from October to December 2018 with the aid of an electronic form technology, Google Forms, a Google Drive application accessible through software Google Docs. It is a semi-structured form composed of 14 multiple-choice questions and five essay questions encompassing aspects concerning patient profile, and knowledge of nursing care systematization and its applicability.

First, authorization was requested from the Director of the Regional Health Zone for the research to be conducted. After the authorization and with this document in hands, the research project was registered at Plataforma Brasil to be reviewed and receive the legal opinion of the Ethics Committee on Research Involving Humans (*Comité de Ética em Pesquisas Envolvendo Seres Humanos* [CEPEH]) of Paranaense University – UNIPAR.

Right after the research project was approved by the ethics committee, data collection with the professionals started. Nurses received, via e-mail, an invitation to participate in the research with study objectives, methodology, guarantee of confidentiality, in addition to the electronic address (URL) to the Google Forms file containing a free and informed consent form and the data collection form. Thus, the data collection form was made available only after the participant agreed on the consent form. Throughout the data collection period, five invitations for participation were sent via e-mail in order to encourage the nurses to join the present research.

It is valid to mention that the nurse and their place of work were never identified, since no personal information was collected, thus ensuring total confidentiality, which consequently guarantees the participant's privacy and anonymity as to the classified data involved in this study.

The quantitative data collected through the electronic form were transcribed to a Microsoft Excel electronic spreadsheet, in which they were later tabulated for further descriptive statistics.

The qualitative data were fully exported to specific software, and the descriptive content analysis proposed by Bardin (2009) was performed. The nurses were fictitiously identified as "Nur", followed by a numerical sequence, based on the order presented on the form platform. Additionally, information was grouped into categories to facilitate the analyzed themes.

The research project was registered at Plataforma Brasil and submitted to the Ethics Committee on Research Involving Humans of Paranaense University (UNIPAR), obtaining approval under legal opinion No 95732218.5.0000.0109. Thus, all ethical requirements set forth in the Resolution of the National Health Council (*Conselho Nacional de Saúde* [CNS]) No 466/2012 were met.

Results

A total of 44 professionals participated in this research, totaling 60.3% of nurses working in PHC within the studied regional health zone. It was possible to perceive some resistance from them to joining the present study, most likely because of the applied methodology.

As for sex, there is a higher percentage (88.6%) of women in the study, reinforcing the female protagonism in nursing practice.

About age group, 22 (50%) nurses are aged between 30 and 39 years old, and 13 (30%) between 20 and 29 years old, evidencing a group of young adult professionals. When it comes to time since graduation, 50% of the professionals finished college more than 10 years ago, and, regarding time working in PHC, the majority have between 1 to 3 years.

Concerning further training, there is a large percentage of nurses with specialization (79.5%). Moreover, approximately 70% of the professionals work in urban FHt.

Only nine (20.5%) nurses claim to be applying nursing care systematization (NSC) to their assistance practice, whereas 19 (43.2%) are unaware of COFEN Resolution No 358/2009, which addresses the implementation of NCS in all centers that provide nursing assistance. It is worth noting that this resolution is in force for 10 years now, and the ignorance on the part of nurses can directly impact their knowledge and the quality of the care they provide.

There is also a mismatch between knowledge and professional practice, for 25 (56.8%) of the nurses claimed to know about the NCS legislation, thus being aware of its need and importance, but few are applying this process to their job, as shown in the Table1.

Table 1. Nurses' knowledge of NCS and its applicability to professional practice.

Variables	Quantitative (n)	Percentual (%)
Knowledge of the existence of a NCS-related legislation		
Yes	25	56.8
No	19	43.2
NCS applicability		
Yes	9	20.5
No	6	13.6
Sometimes	19	43.2
Some steps only	10	22.7
Existence of instrument for applicability		
Yes	14	31.8
No	30	68.2
Instrument suited to reality		
Yes	16	36.4
No	28	63.6

The origin of NSC knowledge was another item assessed in the present research, with 41 (93.2%) nurses claiming to have learned about NCS in college; on the other hand, three (6.8%) participants finished college without hearing of NCS, despite it being a work tool for nursing professionals.

Table 2 is based on four answers; the "sometimes" item refers to application to certain assistance activities, and "some steps", to partial NP applicability.

Analyzing the information, it is possible to observe that the Basic Health teams (BHt) have been applying the systematization at higher rates compared to the Family Health teams (FHt). Concerning further training, there is a small difference in NCS applicability between postgraduate students and the participants with an undergraduate degree only; broadly speaking, considering the "some steps" and "sometimes" items, postgraduate students have higher application scores but, analyzing the execution of all NCS steps, nurses without further training show greater compliance with the practice.

About time since graduation, the nurses who finished college earlier showed a higher percentage of NCS application, and so did those working in PHC for a longer time. Another relevant factor presented in the table above is the low application of the whole NCS process, that is, the execution of all of its steps, since the percentages reflect its application only in some moments and steps, showing that the nurses are not applying the systematization to all users who seek assistance in PHC.

Table 2. NCS applicability by variable: team type, further training, time since graduation, and practice time.

Variables	NCS applicability							
	Yes (n)	Yes (%)	No (n)	No (%)	Sometimes (n)	Sometimes (%)	Some steps only (n)	Some steps only (%)
Team type								
BHt	2	28.6	1	14.2	1	14.2	3	43.0
Urban FHt	6	19.3	4	12.9	14	45.2	7	22.6
Rural FHt	1	16.7	1	16.7	4	66.6	0	0.0
Further training								
None	2	28.6	1	14.3	3	42.8	1	14.3
Specialization	7	20.0	4	11.4	15	42.9	9	25.7
Master's	0	0.0	1	50.0	1	50.0	0	0.0
Time since graduation								
Less than 12 months	0	0.0	0	0.0	1	100.0	0	0.0
1-3 years	0	0.0	0	0.0	1	100	0	0.0
4-6 years	1	16.7	1	16.7	2	33.3	2	33.3
7-9 years	4	30.8	2	15.4	3	23.0	4	30.8
10 years or more	4	20.0	3	15.0	9	45.0	4	20.0
Practice time								
Less than 12 months	0	0.0	1	20.0	3	60.0	1	20.0
1-3 years	3	23.0	1	7.7	4	30.8	5	38.5
4-6 years	3	25.0	2	16.7	5	41.6	2	16.7
7-9 years	0	0.0	0	0.0	1	50.0	1	50.0
10 years or more	3	25.0	1	8.3	6	50.0	2	16.7

From the reports in the qualitative research, the following theme categories were defined.

Nurses' Understanding of NCS

Nursing Care Systematization (NCS) is a means to organize the care practice of nurses in health care environments, determining the applicability of assistance through a methodological order by steps, the NP. In this sense, for knowledge of the steps involving NCS and their chronological position to be assessed, the nurses were asked to describe the NP steps in the right order, with the following statements being obtained:

> Nursing history, Nursing diagnosis, Nursing planning, and Nursing implementation and assessment. (Nur 5)
>
> Anamnesis, physical examination, nursing diagnosis, nursing prescription, care plan. (Nur 9)
>
> Investigation, diagnosis, planning, implementation, assessment. (Nur 15)
>
> History/anamnesis, physical examination, diagnosis, prescription, evolution. (Nur 37)

Besides knowledge of the steps, the nurses were asked about the existence of the resolution that establishes guidelines on NCS, which most of the nurses identified it as Resolution COFEN No 358 of 2009, while others related it to the legislation on professional exercise, as shown by the reports below.

> I guess it's about nursing practice, I don't know. (Nur 3)
>
> Resolution COFEN 358/2009. (Nur 5)
>
> I don't remember. (Nur 11)
>
> Art 4, law No 7.498, June 25, 1986 [...]. (Nur 23)

Importance of Nursing Care Systematization

When it comes to the importance of implementing NSC into the care provided to PHC users, the nurses highlight it as something extremely relevant in nursing assistance and comment on the relationship between systematization and comprehensive and individual care, professional valuation, and assistance quality and organization.

> Individualized, holistic, humanized care. (Nur 2).
>
> It'd be really valid if we could have conditions to apply NCS because then we'd be able to give patients the adequate support that they need, getting to know in depth the situation of each resident in the coverage area. It'd be also great to screen the cases to be referred to a doctor. With proper application, we could unburden the unit with medical consultations that the nurses themselves can conduct to solve problems. Everything with adequate support, of course, especially from management. (Nur 6).
>
> It reduces expenses generated by mistakes and waste of time resulting from a disorganized work environment. It generates a quality assistance, with efficiency and efficacy. (Nur 15)
>
> More time, higher success rates in nursing actions. I also see an improvement in the work of the nursing team from a qualitative viewpoint, as well as a better assistance to the needs of both users and their families as a whole. (Nur 21).
>
> NCS enables quality care, besides being a tool that attests the quality of the service provided by the nurse, who starts to be more valued and respected by other professionals. (Nur 27)

It is possible to observe that the answers were more detailed with respect to the benefits, with each nurse describing their perception on the importance of NCS within PHC; thus, it has been stated that systematization is an organization instrument that improves nursing assistance, bringing about a higher quality to health care.

Difficulties and Challenges in Applying NCS

Despite recognizing NCS as a methodology that changes and benefits a nurse's work, most of the professionals do not apply said systematization to their professional routine, mentioning the existence of hindrances in their work context and their reasons for not applying the process, as reported below:

> We lack time in our work environment, which leaves no time to study more about the subject and be able to apply NCS correctly and efficiently. (Nur 2).

> There's no time because a nurse performs multiple functions, we lack proper structure, proper equipment, we lack encouragement from management. (Nur 7)

> It's a process that requires a great deal of organization in the work process because it requires a lot of attention from nursing professionals, who nowadays take on many roles and end up overburdened in the unit". (Nur 16)

> There is no refresher course in the Municipality on the theme. (Nur 20)

> There is no commission, protocol to follow on NCS in health units. (Nur 25)

> Our routine is often swamped with work, which does not contribute to us applying NCS to all situations. (Nur 33)

Most of the arguments were based on lack of time, showing that nurses are subjected to a high service demand and bureaucratic matters under their responsibility. They also reported as a hindrance to NCS implementation their lack of supporting material for applicability, since there is no appropriate instrument for basic health that helps nurses implement NCS.

Another factor mentioned was encouragement and support from management, emphasizing the need for managers to be in tune with assistance professionals, being aware of their service reality in order to intervene better. Moreover, the mention of lack of a training course reinforces that the nurses do not feel prepared to apply NCS with the knowledge they have.

Suggestions for NCS Applicability

Finally, as for the process of implementing NCS in primary health care, the nurses bring some relevant suggestions that must be carefully taken into account by managers, as reported below:

> Maybe, besides interest from the employees themselves and their availability to apply the NCS, a training could be provided by the regional health zone. What we learn in college, if we don't apply it every day, we forget it […]. (Nur 1)

> Refresher courses on the theme, especially for nursing professionals who graduated long ago. (Nur 12)

> They should hire more employees because the teams are incomplete, they should also distribute or facilitate the purchase of the NANDA. (Nur 17)

> Implementation of an NCS protocol for each area (women, elderly, children). Provision of bibliographic material or websites for search of diagnoses, interventions. (Nur 30)

Among the several expressed opinions, many nurses mentioned training and refresher courses, which shows that they do not feel prepared to apply the NCS but, on the other hand, are willing to receive training so that they can apply nursing systematization to their work environment.

Discussion

The results show that the professionals participating in the study are mostly women, aged between 30 and 39 years old, who graduated college more than 10 years ago, have specialization and work in urban FHt. Comparing profile findings, the characterization of other participants in different investigations is similar to the results of the present one, for both age group and sex (Giehl et al., 2016).

The matter of sex has to do with the fact that nursing has been, from remote times, a profession typically chosen by females. Other studies also report significant differences as to the participation of women in nursing, evidencing their remarkable engagement in said occupation (Silva et al.,2016; Krauzer et al., 2015).

Concerning the nurses' further training, data show that most of them have been seeking to acquire more knowledge through specialization courses in order to provide a more qualified assistance to the population. However, only a few have Master's and PhD degrees, revealing that this professional category is far from *stricto sensu* studies and calling for incentive and motivation for nurses to pursue this training level, which will certainly contribute to improving their professional practice.

Among the nurses participating in the present study, most of them belong to Family Health Strategy (FHS) teams. Said assistance strategy consists of a new health care model that counts with multiprofessional teams capable of reorganizing basic health care in terms of expansion, qualification and consolidation, in consonance with SUS guidelines (*Organização Mundial da Saúde* [OMS], 2019). Thus, it would be valid if nurses applied the systematization to meet the purposes of the strategy, but these data evidence that NCS is not applied to all users assisted in PHC.

The fact that most of the nurses revealed to know about NCS reinforces the participation of higher education institutions as to including disciplines involving the practice of care still during the undergraduate program. However, there are clear teaching gaps, since the nurses are not applying the systematization at the same proportion that they reveal their knowledge.

Thus, it is a challenge to understand the systematization in professional practice and not as a theoretical concept learned in undergraduate courses, especially considering the many difficulties in applying the process to professional practice (Costa et al.,018; Krauzer et al., 2015).

When it comes to the steps that compose the NP, despite different terminologies being used, the answers given by the nurses follow the methodological order established in the COFEN resolution, revealing that they have basic knowledge on how to carry out the systematization.

On the other hand, as for the legislation that rules NCS applicability, approximately half of the nurses in this study report not knowing the legislation, which is worrisome because, if they do not know it, they will unlikely carry out their practice systematically in their work environment. Corroborating, another research has also assessed that nurses have little knowledge of the systematization, which makes it difficult to apply the process (Krauzer et al., 2015).

With respect to the existence of an instrument for NCS applicability, a big portion of the nurses state that there is no instrument in PHC that enables this practice, and the professionals that claim that there is any highlight that it needs to be suited to the reality of where they work. This factor hinders the implementation of NCS because, without any material in their hands, nurses will unlikely apply NCS; moreover, the instrument consists of a strategy for operationalizing offered actions, organizing work and facilitating information collection (Tavares & Tavares, 2018).

About NCS application by the PHC nurses in the present study, only a few of them carried out this practice following the steps systematized and established by the COFEN, which is a worrisome finding, for NCS implementation is related to the quality, resolution and security of assistance.

Strengthening these results, a study that have analyzed the application of the Nursing Process by PHC nurses in a municipality in the countryside of Alagoas, Brazil, evidenced that the application of NCS by these professionals is not effective, with only a few NCS steps being taken, thus fragmenting the nursing process and care itself (Costa et al., 2018). Analyzing the scientific literature on the theme of systematization with primary health care, one can find discrete studies involving NCS application to this field (Barros & Pereira, 2016).

In the present study, the nurses also defend in their reports for the qualitative research the relevance of implementing NCS, pointing out that it is responsible for providing a holistic, comprehensive, quality and resolutive care to users, in addition to promoting the autonomy of nursing professionals, organizing assistance and teamwork, as well as reducing referrals and, consequently, unnecessary expenses, but that its implementation is difficult.

The benefits of applying NCS have a direct impact on the quality of care, since the professionals see the difference in the service guided by systematization, as it enables a more comprehensive care, accurate diagnoses, and facilitates the spread of information among team members (Giehl et al., 2016). Thus, the implementation of NCS in health care environments helps organize all of the assistance provided by nurses, besides giving more visibility to this professional category (Gomes et al., 2018).

The advantages reported in the literature addressing NCS also include a better communication between team members, especially concerning computerized systems, easier acquisition of patient information, full assistance and intervention proposals more suited to the realities of clients (Giehl et al., 2016; Silva et al., 2018).

From a different perspective, there are professionals who do not recognize the benefits of NCS in their workplace, judging it to be a merely bureaucratic matter that does not interfere with the quality of their assistance (Giehl et al., 2016). However, all study participants stated that NCS is an essential instruments in nursing assistance and that it enables a quality and safe care to users. Although all nurses mentioned the benefits and recognized the importance of NCS for assistance, there is an evident information contradiction, since they do not apply the systematization at the same proportion.

Thus, despite being aware of the importance of NCS in their professional practice, the nurses presented a low percentage of systematization applicability during their work activities, with difficulties mostly derived from lack of time and overload, which points at a management issue related to staff allocation.

A research conducted in a clinical unit at a medium-sized hospital in the state of Rio Grade do Sul, whose objective was to describe the nursing team's perception on the NCS implementation process, reinforces the data in the present study, in which the nurses confessed they know the relevance that NCS has in their workplace, but report not having available time to develop it because the applicability of the systematization demands time for the provision of a quality care centered on all systems that compose an individual (biological, psychological and social) and their family (Giehl et al., 2016).

It is possible to observe that nursing care systematization in PHC is surrounded by challenges and difficulties that oftentimes hinder the applicability of the process. A literature review conducted with studies published between 2005 and 2015 evidenced that applicability difficulties are intrinsically related to personal and institutional problems (Gomes et al., 2018). Other authors, in their turn, point out overwork, lack of material and human resources and lack of support from governing bodies as a nurse's problems (Costa et al., 2018). They also argued that the absence of a specific room for nurses hinders nursing consultations, and so does the absence of an adequate place for these professionals to develop their activities (Caçador et al., 2015).

With respect to the difficulties exposed by the nurses in the present study as to NCS implementation, they did not mention having no knowledge but, when asked for suggestions to improve NCS applicability, they defended the need for refresher and training courses, claiming to be unprepared to carry out this practice. This highlights the importance of developing ongoing education actions involving NCS application in order to improve the work process and ensure an assistance that can intervene in the health-disease process of the population.

Theoretical and practical education within health services allow for a more effective learning to nurses, in which the process can be constantly assessed and enhanced (Krauzer et al., 2015). One must also consider the relevance on training on the benefits of NCS applicability, since this will spark the interest of nurses in implementing this process, and increase their knowledge of the theme (Giehl et al., 2016).

Among the nurses' reports in the present research, some of them stressed the need for support from management as a means to facilitate the applicability, mainly because managers, oftentimes, do not regard NCS as something relevant to nursing practice and, consequently, do not encourage these professionals to apply it, in addition to not providing training on the theme. Analyzing this perception on management, a research conducted in the Midwest of Minas Gerais, Brazil, revealed that manager nurses working in basic health, despite understanding the importance of implementing the nursing process, do not regard it as an ideal tool to improve primary care (Diniz, Cavalcante, Otoni, & Mata, 2015)

Finally, it is worth mentioning as a limitation of this study its number of participants, since 39.7% of the nurses did not join the research, which may be related to the method used, for the nurses were not approached in person but via electronic mail, and to the theme, for it is directly related to assistance provided by nursing professionals in primary health care and, consequently, to the quality of care.

Conclusion

The assessed regional health zone presented low applicability of nursing care systematization by nurses working in PHC; furthermore, there are many professionals not applying the systematization in its entirety, which may fragment nursing care.

About the nurses' knowledge, it is scarce and calls for training and refresher courses on health services to broaden the learning about systematization and, then, greater compliance with NCS and NP applicability. Because the systematization is such a relevant tool for professional practice, nurses need to have their knowledge constantly updated, and the learning of undergraduate students need to be strengthened so that, when exposed to the job market, they are truly prepared for applying a systematized and quality care.

There are clearly numerous fragilities and difficulties when it comes to applying NCS in PHC, especially concerning time availability, overworked nurses and need for training. Thus, it is of utmost importance that managers analyze the work process of PHC professionals and reconsider ways to reorganize health care teams so that these professionals have time to develop their specific and exclusive functions, providing the population with a safe and quality assistance.

It is also worth noting the need to prepare an instrument specifically dedicated to NCS implementation in PHC, since nurses do not have any material that guide them through the several phases of the process.

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