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Perceptions of nursing professionals regarding the integration of nursing technicians in the systematization of care

Percepções de profissionais de enfermagem acerca da integração do técnico de enfermagem na sistematização da assistência

Percepciones de los profesionales de enfermería sobre la integración del técnico de enfermería en la sistematización de la asistencia

Pétala Tuani Candido de Oliveira Salvador[1]
Cláudia Cristiane Filgueira Martins Rodrigues[1]
Manacés dos Santos Bezerril[1]
Larissa de Lima Ferreira[1]
Flávia Barreto Tavares Chiavone[1]
Lílian de Andrade Virgílio[1]
Viviane Euzébia Pereira Santos[1]

1. Universidade Federal do Rio Grande do Norte. Natal, RN, Brazil.

ABSTRACT

Objective: To describe the perceptions of teachers and healthcare professionals regarding the integration of nursing technicians in Nursing Care Systematization (NCS). **Methods:** This was a descriptive, qualitative study. Participants were seven teachers and 13 nursing technicians linked to a university hospital in northeastern Brazil. Data collection occurred using the focus group technique and the textual content was submitted to lexicographical analysis. **Results:** The perceptions of the teachers resulted in four analysis classes: potentials of integration of the technicians in NCS; obstacles and weaknesses; training of the technicians; and teaching in the service as paramount. Regarding the opinions of the technicians, three classes were analyzed: subjective representations; potentials of the NCS; and possible contributions of the nursing technicians. **Conclusion:** The teachers and healthcare professionals described the potentials of the integration of nursing technicians in NCS and recognized this as a condition for the effectuation of this working method.

Keywords: Nursing; Nursing Care Planning; Nursing Process; Nursing Technicians.

RESUMO

Objetivo: Descrever as percepções de docentes e de profissionais da assistência acerca da integração do técnico de enfermagem na Sistematização da Assistência de Enfermagem (SAE). **Métodos:** Trata-se de estudo descritivo, de abordagem qualitativa. Participaram sete docentes e 13 técnicos de enfermagem vinculados a um hospital universitário do Nordeste brasileiro. A coleta de dados ocorreu a partir da técnica do grupo focal e o conteúdo textual foi submetido à análise lexicográfica. **Resultados:** As percepções dos docentes resultaram na análise de quatro classes: potencialidades da integração do técnico na SAE; entraves e fragilidades; formação dos técnicos; e ensino em serviço como primordial. Quanto às opiniões dos técnicos, três classes foram analisadas: representações subjetivas; potencialidades da SAE; e possibilidades de contribuição do técnico de enfermagem. **Conclusão:** Docentes e profissionais da assistência descrevem as potencialidades da integração do técnico de enfermagem na SAE e a reconhecem como condicionante para efetivação deste método de trabalho.

Palavras-chave: Enfermagem; Planejamento de Assistência ao Paciente; Processos de Enfermagem; Técnicos de Enfermagem.

RESUMEN

Objetivo: Describir las percepciones de docentes y técnicos de enfermería sobre la integración del profesional técnico en la Sistematización de la Asistencia de Enfermería (SAE). **Métodos:** Estudio descriptivo de abordaje cualitativo. Participaron siete profesores y trece técnicos de enfermería de un hospital universitario en el Noreste de Brasil. La recolección de datos se produjo de la técnica de grupo focal y el contenido textual ha sido sometido al análisis lexicográfico. **Resultados:** De las percepciones de los profesores emergieron cuatro clases: las capacidades de integración del técnico; obstáculos y debilidades; formación de técnicos; y enseñanza en servicio. En cuanto a las opiniones de los técnicos, se han analizado tres clases: representaciones subjetivas; potenciales de la sistematización; y las posibilidades de contribución del técnico de enfermería. **Conclusión:** Docentes y técnicos describen el potencial de la integración del técnico de enfermería en SAE y la reconocen como condicionante para efectuación del método.

Palabras clave: Enfermería; Planificación de Atención al Paciente; Procesos de Enfermería; Enfermeros no Diplomados.

Corresponding author:
Pétala Tuani Candido de Oliveira Salvador.
E-mail: petalatuani@hotmail.com

INTRODUCTION

Seeking its consolidation as a science of caring, nursing still seeks to structure its professional values.[1] In this process, Nursing Care Systematization (NCS) emerges as a solid conceptual framework that aims to professionalize patient care through work instruments that assist in decision making for the implementation of scientific, holistic and continuous care.[2,3]

With a reality of unequal effectuation in the Brazilian context, many researchers have sought to study the benefits of using NCS in healthcare settings. It has been shown that the use of NCS allows an effective improvement in the quality of care, valorizes the scientific aspect of the profession and ensures benefits, such as promoting integration between the nursing staff and other members of the health team; providing conditions for the assessment of the care; making care possible in individualized and holistic contexts; and providing conditions essential for the progress and the autonomy of the profession.[2,4,5]

In this sense, NCS provides actions in both care and administrative areas, facilitating the organization of the work and of the services of the nursing team.[5,6] In this panorama, the training and involvement of the entire nursing team are highlighted. This study emphasizes the relevance of the integration of nursing technicians in the NCS implementation process.

For NCS to achieve satisfactory results and be solidified, mastery of the theme by the nursing team is necessary.[3,4,7] It is known that nursing technicians are important in this process, as they should participate in the implementation of the care plan, together with the nurse, considering that everyone can contribute, at the appropriate time, with information or activities that favor the care for the patient.[4] However, it is known that the training process of nursing technicians presents a deficit regarding NCS, with this issue often only included in the training of higher level professionals.[4,8,9]

Therefore, it is essential to establish training programs for the professionals in the services to compensate for the gaps in their training, as the lack of comprehension of nursing technicians regarding the purpose of NCS and their shortage of skills in the care systematization process impede their adherence and participation.[9]

In order to contribute to a better understanding of this phenomenon - the participation of nursing technician in NCS - the following study question was defined: how do teachers and healthcare professionals comprehend the integration of nursing technician in NCS?

The aim was to describe the perceptions of teachers and healthcare professionals regarding the integration of nursing technicians in nursing care systematization.

METHODS

This was a descriptive, qualitative study. Participants were seven teachers of the Nursing Technical Course of a public university in the Northeast of Brazil and 13 nursing technicians linked to the university hospital of the same higher education institution.

Data collection was carried out, using the focal group technique,[10] in February 2013 with the healthcare professional (nursing technicians) and in February 2015 with the teachers.

It should be noted that the study with the nursing technicians integrated research that aimed to understand the characterization of these professionals regarding NCS, revealing the teaching process as a basic aspect of the problems of integration of nursing technicians in NCS.

Thus, the study with the teachers constituted an unfolding of the study results with the healthcare professionals, which denoted the importance of comprehending the perception of teachers so that they could highlight improvements in the teaching of nursing technicians. This fact explains the period separating the two data collection phases.

For the nursing technicians, the inclusion criterion considered was: to work at the university hospital of the study providing direct care to patients. Regarding the teachers, practicing teachers that had worked for at least six months on the Nursing Technical Course were included. This length of time was deemed adequate for settling in and knowing the pedagogical project of the course. In addition, for both groups of participants, the recommendation from the literature that focus groups should have the participation of 6 to 15 people to ensure their effectiveness was considered.[10]

Prior to the performance of the study, invitations to nursing technicians were posted in the hospital, requesting those interested to make contact for subsequent selection. A total of 44 professionals showed an interest in participating. A draw of 15 professionals was conducted using the RANDBETWEEN tool of *Microsoft Excel* 2010. Of these, two did not attend the data collection meeting, therefore, 13 nursing technicians comprised the study sample. Regarding the teachers, 14 that fulfilled the study inclusion criteria were invited to participate. Of these, seven attended and comprised the study sample.

It should be noted that the nursing technicians who had completed their course in the institution in which the teachers worked were not included in the study. Thus, there was no direct relationship between the teachers and nursing technicians who participated in the study.

The focus groups aimed to identify the perception of the professionals regarding the integration of nursing technician in NCS. For this, in the data collection meeting with the healthcare

professionals, the guiding question was "In your professional practice, how do you envision your participation in NCS?". In the focus group with the teachers, they were invited to reflect on the following question: "What do you think about the integration of nursing technician in NCS?". Each focus group had a previously trained research team, composed of a mediator, a reporter and two collaborators responsible for photographic and audio recording, with the consent of the participants.

To fulfill the scientific criterion regarding the reliability of the data, the researchers were previously trained for the data collection, with the simulation of a focus group, in which the experience of the data collection technique allowed the standardization of the functions of each in the collection sections, and for the data analysis, with training in the use of the software.

The statements of the focus groups were transcribed and the text content was submitted to lexicographical analysis, using the *Interface de R pour* les *Analyses Multidimensionnelles de Textes et de Questionnaires* (IRAMUTEQ) software. Descending Hierarchical Classification and similarity analysis were used as the data treatment methods.[11] Data were analyzed considering the current and relevant literature and the teams that participated in the two sections of the focus group contributed to the data analysis. In addition, a questionnaire with sociodemographic and professional data was used for characterization of the participants.

The study fulfilled the ethical and legal principles governing scientific research with human subjects, according to Resolution No. 466/2012 of the National Health Council. The study was analyzed by the Research Ethics Committee and approved under Authorization No. 98424 of 31 August 2012, CAAE No. 05906912.0.0000.5537 and No. 925408 of 18 December 2014, CAAE No. 39640914.8.0000.5537. Subsequently, the consent of the participants in each stage of the study was obtained, with an explanation of the voluntary nature of the study and guarantee of their anonymity.

RESULTS AND DISCUSSION

Participants were seven teachers of the Nursing Technical Course, female (7; 100.0%), with a mean age of 50.0 ± 11.6 years (minimum of 34 and maximum of 61 years) with MSc qualifications (7; 100.0%) and up to 10 years experience in technical higher education (4; 57.2%), however, in a context in which the teaching of NCS to nursing technicians was not experienced (6; 85.8%). Thirteen nursing technicians also participated, who presented a predominance of women (12; 92.3%), with a mean age of 26.9 ± 8.6 years (minimum of 23 and maximum of 53 years), who worked in the clinical and surgical areas of the hospital and presented a period of between 4 months and 2 years since the completion of technical training. It should be highlighted that 11 nursing technicians (84.6%) presented two years since the completion of their course.

The analysis of the corpus from the focus groups with the teachers and nursing technicians highlighted 9,239 occurrences of words, distributed in 1,543 ways. Through Descending Hierarchical Classification, 251 segments of text were analyzed, with 92.96% of the corpus retained for the construction of seven classes resulting from the content partitions (Table 1).

Perceptions of the teaching professionals

Classes 1 to 4 group the perceptions of the teaching professionals, which reveal the strengths and weaknesses to consolidate the integration of nursing technicians in NCS and highlight the educational process, both initial and continued, as an element that can contribute to this integration happening.

Class 1, with 19.92% of the analyzed corpus, denotes the "Potentials of the integration of the nursing technician in NCS" highlighting the effectuation of teamwork and integral care, as highlighted in the statements of the teachers.

> *It would be a way that could even result in integral care for the person and that would break the technicality (Teacher 6).*
>
> *The process needs to be understood as teamwork from the first moment (Teacher 2).*
>
> *This coordination of the nurse is really needed, so this nurse is really a leader, who experiences all of this, but the whole team needs to be integrated (Teacher 3).*

In this context, the interdependence of the nursing team is emphasized as an imperative that can make a difference in both interpersonal relationships at work and the result of the care provided to the patient.[12] Teamwork, therefore, emerges as a result of a complex process, in which there is a need to integrate workers from different areas and with levels of training, in order to promote a "web of actions" that need articulation and are carried out by a variety of professionals.[12] It is understandable, then, that the participation of all nursing professionals in the effectuation of NCS is a core element, in order to affirm the clinical power of nursing, from the articulation of the nursing team, aiming for integral, individualized and decisive care.

It is necessary to overcome the simple grouping of members of the nursing staff, with a view to real participation of all by overcoming the dichotomy that still characterizes nursing: on one side, those, or the one, who plans; and on the other, those that perform, which causes a split in the care process.[8] One study aimed to analyze the feasibility of the implementation of NCS in a hospital emergency service and revealed that the nursing technicians and assistants saw themselves as mere performers (caregivers) in the context of NCS, so that they perceived themselves as devoid of reflective capacity and decision power in the care provided.[1]

Table 1. Results of the Descending Hierarchical Classification of the text corpus. Natal - RN, 2016

Partition	Class	Lexicographical analysis			Significant variable*
		Word	χ^2	%	
Perceptions of the teaching professionals	1 - Potentials of the integration of the nursing technician in NCS: effectuation of the teamwork and the integral care (19.92%)	Important	20.11	72.73	Teacher
		Service	15.50	83.33	
		Valorize	12.21	100.00	
		Result	12.21	100.00	
		Insert	12.21	100.00	
	2 - Obstacles and weaknesses: need for change (10.76%)	Process	45.24	52.17	
		Complex	32.72	100.00	
		Necessity	30.40	66.67	
		Context	25.19	100.00	
		Need	14.04	31.03	
	3 - Training of nursing technicians in the context of NCS: necessary curricular change (15.94%)	Student	27.66	62.50	
		Teacher	26.17	85.71	
		Knowledge	21.52	75.00	
		Construct	21.44	100.00	
		Think	19.90	42.42	
	4 - Teaching in the service as a core component (12.35%)	Need	46.96	51.72	
		Theory	36.21	100.00	
		Team	9.80	30.00	
		Planning	8.27	66.67	
		Coordination	8.27	66.67	
Perceptions of the healthcare professionals	5 - Subjective representations regarding NCS (15.14%)	Signify	29.70	72.73	Nursing technician
		Represent	21.06	47.83	
		Care	18.30	58.33	
		Hope	16.71	80.00	
		Act	11.34	75.00	
	6 - Potentials of NCS: seeking quality of the care (11.16%)	Provide	32.37	100.00	
		Affection	32.31	83.33	
		Respect	26.39	71.43	
		Duty	23.24	42.86	
		Quality	19.11	66.67	
	7 - Possible contribution of the nursing technician: desired integration (14.74%)	Seek	41.65	100.00	
		Learn	19.05	58.33	
		Improve	12.47	50.00	
		Correct	11.74	75.00	
		Understand	8.17	50.00	

* $p < 0.0001$.

Seeking to overcome this reductionist view of the integration of nursing technicians in NCS, the highlighting of the words important, service, value, result and insert (Table 1) suggest that the teachers understood the nursing technicians as professionals that could help in the effectuation in NCS and therefore need to have their integration consolidated within this working method.

> It is important for them [nursing technicians] to feel part of this process, they also have to learn and have to contribute (Teacher 5).

> Nursing technicians, as well as nurses, have very a important role in this process, since this is a category that has direct and continuous contact with the health service user (Teacher 4).

It is known that NCS presents activities specific for nurses, however, it is understood that the division of labor does not prevent, in performance of the activity or in the real work, the fusion of roles among the members of the nursing team, the exchange of information and, therefore, the possibility of training and cooperation in the work.[13]

In contrast to the potentials highlighted in class 1, the teachers also revealed concerns regarding the "Barriers and weaknesses" for the consolidation of the integration of nursing technician in NCS, which can be understood through class 2, which grouped 10.76% of the text segments analyzed. The words complex, necessity, context and need exemplify the anxieties of the teachers about how this integration can be made, given the work and training context of nursing technicians that, for the teaching professionals, represent aspects that hinder this process.

> I'm aware of the importance of the participation of nursing technicians in NCS, but I'm not yet mature enough to know how this learning process will take place [...] for us to have in the teaching, we need to have in the care as well (Teacher 2).

> The context of difficulty that gravitates around this care is very broad: the need for multiple bonds [...] a sacrificed team that, as a rule, has little or no availability and willingness for new learning (Teacher 2).

It has been emphasized that the total or partial implementation of NCS has no representation in many healthcare institutions in Brazil.[2] Several factors are cited for this fact, such as: organizational deficits, work overload, cultural devaluation of NCS, lack of routine and difficulty in skill acquisition, as well as resistance to working with new methodologies.[2,4,14]

These obstacles are also indicated in international studies, such as those carried out in Ethiopia[3] and Bolivia,[7] which emphasized the lack of resources, time and adequate knowledge as the main obstacles to the implementation of the NCS process.

The teachers revealed concern about the non-consolidation of NCS in the care practice, which, for them, would adversely affect seeking a teaching process that incorporates this theme. This could negatively influence both the teaching of the theory-practice articulation and the training of professionals who will be frustrated to find a reality in which NCS is not effective.

A study that sought to evaluate the application of the nursing process and its influencing factors in the Mekelle Zone Hospitals in Ethiopia concluded that knowledge was one of the greatest determining factors for the application of the nursing process and indicated that there was a problem in the application of the nursing process due to variations between what the nurses were taught in school and what they were applying in the care practice.[3] Similarly, a study aiming to comprehend the interactional planning-implementation process of NCS in a university hospital in São Paulo state, found that the professionals did not legitimize NCS in their work environment, due to the NCS implementation process not having favorable conditions for the success of the proposal.[14]

Not legitimizing NCS confirms the concern of the teachers regarding the work context of the nursing technicians, permeated by obstacles that can negatively contribute to the *availability and willingness for new learning*, as highlighted by Teacher 2. In confirmation of these weaknesses, a study that aimed to evaluate the implementation process of NCS in a pediatric unit of a university hospital showed that, when asked about the factors that hindered and facilitated the implementation of NCS, the professionals of both categories mentioned the workload related to the insufficient number of professionals (30% of the nurses and 23.3% of the technicians), the workload related to the differences and the lack of definition of the role of the nurses in the unit (20% of the nurses and 18.6% of the technicians) and the lack of time for the care (20% of the nurses and 18.6% of the technicians). The nursing technicians (14%) also identified the bureaucracy to implement NCS as a complicating factor.[9] However, while reflecting on the difficulties of carrying out the integration of the nursing technicians, the teachers highlighted the need for changes, as they argued that ways for the barriers to be overcome should be laid out:

> Because if you do not think of other ways and try other ways to see how this changes, we will not change the route (Teacher 7).

Among the ways to overcome the weaknesses identified in class 2, the teachers emphasized the educational process of the nursing technicians, this being part of class 3, "Training of nursing technicians in the context of NCS: necessary curricular change", which integrated 15.94% of the text corpus and highlighted the words student, teacher, knowledge, construct and think.

The teachers reflected that NCS needs to be included in the curriculum of the Nursing Technical Courses and, therefore, the technicist view of training of the nursing technicians must be overcome, as highlighted in the statements of the study participants.

> *For them [nursing technicians] to feel part of this process, they also have to learn and have to contribute and there is the importance of the training (Teacher 5).*

> *To construct this they [the teachers] would have to make the student know how to think to be able to do, because to do just by doing, the technique by the technique would not be the proposal, this knowledge would be making them thinking (Teacher 7).*

A study that aimed to understand the typical view of nursing technicians regarding NCS found that the training process of the nursing technician needs to be revised with respect to NCS, with the theme fundamentally included in the curriculum.[8] Similarly, a study that aimed to evaluate the implementation process of NCS in a pediatric unit of a university hospital found that NCS needed to be addressed more in the mid-level nursing courses, as NCS was present in the curricula of nursing undergraduate courses, however, little or no information was provided in the technical courses.[9] Therefore, as highlighted by Teacher 7, it is necessary to overcome the technicist view in the training of nursing technicians: *to do by doing, the technique by the technique would not be the proposal*.

The technicist view draws the professional away from reality, focusing only on the biological and technical aspects of healthcare. Thus, the care provided by health professionals is often developed mechanically, guided by tasks and strictly following rules and prescriptions.[2] For the nursing technician to be able to engage and participate in NCS, the reflection on these actions is fundamental in order to overcome the practice centered on technical ability.[2,13]

As already outlined in the discussion of class 1, from the perspective of training the nursing technicians in NCS, the teachers emphasized an aspect that concerned them: the absence of consolidation of NCS in the healthcare context. This, for them, undermines the teaching/service integration and the theory/practice articulation, which could be an obstacle to the comprehension of these professionals in training.

> *But it's no use being just theoretical content and that is not an easy thing [...] it's no use, no teaching content is learned only in theory, none (Teacher 3).*

> *It's no use just having it in the school now, because when the trained students arrive and do not find fertile ground for them to work, this NCS will be lost, then the process is lost (Teacher 2).*

The teachers pointed out that the healthcare services need to integrate this process of change. In class 4, therefore, the teaching professionals mentioned "Teaching in the service as a core component". This class grouped 12.35% of the textual content and highlighted the words need, theory, team, planning and coordination.

> *The whole team needs to be integrated and to have this theory/practice relationship, not only to have content, they [nursing technicians] need experience, they need to practice, they need to know, they need to participate. How can this be introduced into the course plan? How can this be taught? How will this occur in other scenarios? So it really is a time to think, discuss and review many things (Teacher 3).*

It is known that the organization and the use of NCS require the professionals to develop a large amount of knowledge. Thus, the responsibility for this knowledge and skills should be shared between the nursing staff and the institution, combined with ongoing education processes within the service,[2] especially to compensate for a process of training of nursing staff in which NCS was not contemplated.

From this perspective, a study that aimed to identify the obstacles and facilitators encountered in the implementation of the nursing process in Santa Cruz, Bolivia, both in hospitals and at universities, revealed as key facilitators: the involvement of nursing professionals, the university-hospital cooperation and the support provided by the training institutions in the training of professionals within the service.[7] Furthermore, a study that aimed to describe the experience of NCS implementation in an Intensive Care Unit showed that the process of training of the professionals regarding NCS within the service resulted in better acceptance and reduced level of resistance.[4]

In summary, it was noted that the training of mid-level technical professionals should happen as a *continuum*, considering that fragmented and theoretical training makes actualization impossible and favors performance based only on technical procedures.[15] Teaching within the service, therefore, is essential for nursing technicians to have clarity and scientific support for better development of NCS, in order to incorporate and valorize these actions and recognize this process as differential.[4]

Perceptions of the healthcare professionals

Classes 5 to 7 group the perceptions of the nursing technicians, which include a more subjective view of NCS and reiterate the importance of integrating the nursing technician in this working method, which is identified as a desire of the healthcare professionals.

Class 5 was denominated "Subjective representations regarding NCS". It included 15.14% of the text corpus analyzed and highlighted the words signify, represent, care, hope and action. This class allowed the comprehension that, although the nursing technicians do not have scientific training in NCS, they identify it as something beneficial that should be consolidated, which can be seen in the statements of these professionals.

> *NCS for me is a role directed toward all nursing staff [...] we must have a holistic view of the patient, i.e., see the patient as a whole (Nursing Technician 4).*

> *Respect, love, dedication are the right techniques to perform [...] the participation of nursing technicians in NCS should be done with good patient care, everything recorded in the medical records (Nursing Technician 10).*

Lack of knowledge about the NCS theme reflects a training process of nursing technicians in which this approach was deficient or even nonexistent. This aspect is confirmed by other studies, which show a great lack of preparation of the team, especially nursing technicians, mainly due to a lack of knowledge about NCS.[1,8,9,14]

The non-integration of nursing technicians in NCS can also contribute to the perpetuation of this lack of knowledge, which can be seen through the results of a study that aimed to evaluate the implementation process of NCS in a pediatric unit. It evidenced that participation in the initial implementation process included 90% of the nurses and 23.26% of the nursing technicians.[9] Consequently, the lack of knowledge on the topic generates disregard and a loss of the sense of action in nursing technicians.[14]

However, it was possible to understand that the technicians had a positive perception about NCS, so that they elucidated in class 6 the "Potentials of NCS: seeking quality of the care". The words provide, affection, respect, duty and quality reveal these perceptions, which can be synthesized in the statement of Nursing Technician 4: *"NCS is the way this care is provided, the quality of it"*.

Through the positive and subjective perceptions about NCS in class 7, "Possible contributions of the nursing technician: desired integration", the nursing technicians demonstrated their willingness to participate in this working method. The words seek, learn, improve, correct and understand demonstrate the desire of the healthcare professionals to be able to be integrated into NCS.

> *From my point of view I believe we have to seek to develop this [NCS], that we have to look for courses [...] seeking to further develop our knowledge (Nursing Technician 9).*

> *And if we chose the profession, we have to give the best of ourselves, be selfless professionals, do the best for the patients, thinking of the best way possible for them (Nursing Technician 10).*

It was comprehended that working in healthcare requires a good interaction among the team members and cannot be dissociated from social interaction, which was also stated with regard to motivation in the work, so that interpersonal relationships and involvement in the actions of the team constituted a contributing factor to the nursing work.[7,12]

Nursing technicians needs this recognition and, therefore, it is necessary that their integration in NCS is consolidated, which involves training and their involvement in this process. The statements of the participants demonstrate this desire to participate.

This study advances to the point that the nursing technicians showed themselves to be motivated to participate in NCS and to seek new knowledge for this integration to become effective. This is relevant information and denotes the need to review the training process of these professionals and definitely include them in consolidation of NCS.

A study that contemplated a context in which this participation was consolidated showed that the nursing technicians felt more valued because NCS allowed them to better understand the patients and to inform other professionals of the patient history in a clear and true way, which resulted in better communication among the multiprofessional team.[5]

Analysis of the similarity of the text corpus

The analysis of similarity of the perception of the teachers and nursing technicians regarding the integration of the technicians in NCS allowed the similarities and differences in the views of these two professional groups to be comprehended.

Regarding the similarity, it can be seen that both the teachers and nursing technicians understood the potential of the integration of nursing technicians in NCS and recognized this as a fundamental condition for the execution of this working method. This can be visualized by highlighting the word HAVE in both dendrograms (Figure 1), which denotes the concept that the integration of nursing technicians in NCS is necessary and a condition fundamental for its effectuation. The linkage of the word HAVE with the word DO in the two figures shows that this integration is urgent and necessary, so that routes of change should be sought for this to happen.

Studies denote that the technical level health professionals play a key role in the formation and development of the

Figure 1. Analysis of similarity of the perception of the teachers (A) and nursing technicians (B) regarding the integration of nursing technicians in NCS. Natal - RN, 2016.
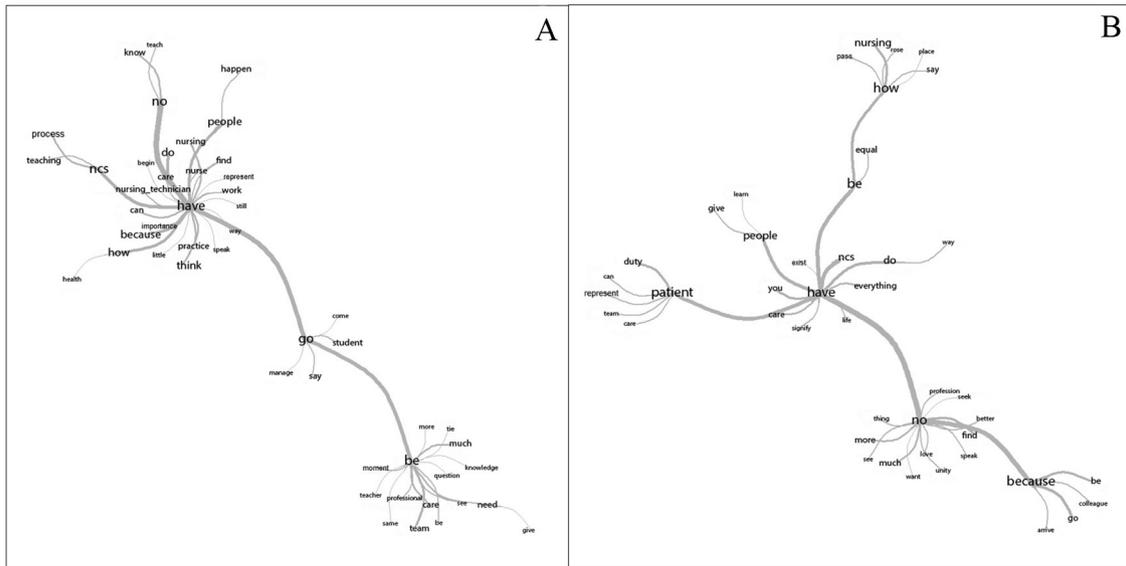
healthcare.[12,13,15] Thus, for the successful implementation of NCS, it is essential to emphasize the importance of the participation of the entire health team in an integrated work process.[1] It is therefore emphasized that, for better implementation of nursing care to be possible through the implementation of NCS, it is necessary to strengthen the contribution of all members of the nursing team.[4]

Regarding the different perceptions between the groups participating in the study, it can be seen that in the similarity analysis of the teachers the training aspect of the nursing technicians appears as the main element and, therefore, as the route to change the view of the teachers. When analyzing Figure 1A, the following connections between the words were highlighted: go-student; be-teacher; not-knowing-teach; NCS-process-teach; and people-happen. It was also seen that the teachers recognized themselves as subjects which should contribute to the effectuation of the nursing technician in NCS, through a necessary curricular change in the training of these professionals.

Conversely, when analyzing the dendrogram of the perception of the nursing technicians (Figure 1B), it is possible to comprehend two complementary aspects: on one side the scientific ignorance about NCS resulting from training in which this issue was not addressed (highlighting the words HOW, NOT, WHY); and on the other, a subjective and beneficial representation regarding this working method, permeated by a desire to participate in this process (linkages patient-should-team and people-learn).

The training process of nursing technicians was seen as a central element of the outstanding issues, which may be the cause or a reinforcement element of the perpetuation of

non-integration of nursing technician in NCS. Therefore, it is stressed that the training process of the nursing technician needs to be reviewed. These discussions also need to be incorporated into the training of nurses, since NCS must be the result of an integration process of the entire professional nursing category.[8,16]

CONCLUSIONS

It was concluded that both the teachers and nursing technicians comprehended the potential of the integration of nursing technicians in NCS and recognized this as a fundamental condition for the effectuation of this working method. For the teachers, the training of the nursing technicians aspect appeared as the main element and, therefore, as the route to change. Regarding the nursing technicians, it was possible to see two complementary aspects: on one side the lack of scientific knowledge about NCS resulting from training in which this issue was not addressed; and on the other, a subjective and beneficial representation regarding this working method, permeated by a desire to participate in this process.

It should be emphasized that the context in which the study participants were included influenced their perceptions, so that these results cannot be generalized to other settings, which is seen as a limitation of this study. It should be noted that the university hospital where the nursing technicians worked and to which the teachers were linked by practical activities is in the NCS implementation phase, which may have influenced the results of the study. It is suggested, therefore, that the study be replicated in other places, as an incentive mechanism to spread the reflection and investigation of the studied phenomenon - the participation of nursing technicians in NCS.

Regarding the potential of the method used, the analysis of the similarities and differences between the perceptions of the two groups of subjects studied provided a more comprehensive view of the subject, highlighting the training aspect of nursing technicians as an element that needs to be rethought in relation to NCS and revealing that nursing technicians are motivated to participate in NCS and to seek new knowledge to achieve this integration.

In this process, the use of IRAMUTEQ as the data processing mechanism was revealed to be innovative and provided significant support for the visualization of the perceptions of the research subjects through a lexicographical analysis. Similarity analysis is an interesting strategy for consideration of the synthesis of perception of the research subjects, from the graphical elements that enrich the data analysis. It is hoped to contribute to the effective integration of nursing technician in NCS and, thus, to the consolidation of this working method as a solid process resulting from teamwork.

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REFERENCES

1. Maria MA, Quadros FAA, Grassi MFO. Sistematização da assistência de enfermagem em serviços de urgência e emergência: viabilidade de implantação. Rev Bras Enferm [Internet]. 2012 [cited 2016 Dec 27];65(2):297-303. Disponível em: http://www.scielo.br/pdf/reben/v65n2/v65n2a15.pdfdoi: 10.1590/S0034-71672012000200015

2. Massaroli R, Martini JG, Massaroli A, Lazzari DD, Oliveira SN, Canever BP. Nursing work in the intensive care unit and its interface with care systematization. Esc Anna Nery [Internet]. 2015 Apr-Jun [cited 2016 Dec 27];19(2):252-8. Available from: http://www.scielo.br/pdf/ean/v19n2/en_1414-8145-ean-19-02-0252.pdf doi: 10.5935/1414-8145.20150033

3. Hagos F, Alemseged F, Balcha F, Berhe S, Aregay A. Application of Nursing Process and Its Affecting Factors among Nurses Working in Mekelle Zone Hospitals, Northern Ethiopia. Nursing Research and Practice [Internet]. 2014 Feb [cited 2016 Dec 27];2014:1-8. Available from: https://www.hindawi.com/journals/nrp/2014/675212/doi: 10.1155/2014/675212

4. Oliveira APC, Coelho MEAA, Almeida VCF, Lisboa KWSC, Macêdo ALS. Sistematização da assistência de enfermagem: implementação em uma unidade de terapia intensiva. Rev Rene [Internet]. 2012 maio-jun [cited 2016 Dec 27];13(3):601-12. Available from: http://www.revistarene.ufc.br/revista/index.php/revista/article/view/727/pdf

5. Adamy EK, Tosatti M. Sistematização da assistência de enfermagem no período perioperatório: visão da equipe de enfermagem. Rev Enferm UFSM [Internet]. 2012 maio-ago [cited 2016 Dec 27];2(2):300-10. Available from: https://periodicos.ufsm.br/reufsm/article/view/5054/3754doi: 10.5902/217976925054

6. Munroe B, Curtis K, Considine J, Buckley T. The impact structured patient assessment frameworks have on patient care: an integrative review. J Clin Nurs [Internet]. 2013 Nov [cited 2016 Dec 27];22(21-22):2991-3005. Available from: https://www.ncbi.nlm.nih.gov/pubmed/23656285doi: 10.1111/jocn.12226

7. Fernández-Sola C, Granero-Molina J, Aguilera-Manrique G, Peredo-Gonzales MH, Castro-Sánchez AM, Pérez Galdeano A. Strategies to develop the nursing process and nursing care plans in the health system in Bolivia. Int Nurs Rev [Internet]. 2011 Sep [cited 2016 Dec 27];58(3):392-9. Available from: https://www.ncbi.nlm.nih.gov/pubmed/21848789doi: 10.1111/j.1466-7657.2011.00884.x

8. Salvador PTCO, Santos VEP, Barros AG, Alves KYA, Lima KYN. Teaching the systematization of nursing care to nursing technicians. Esc Anna Nery [Internet]. 2015 Oct-Dec [cited 2016 Dec 27];19(4):557-62. Available from: http://www.scielo.br/pdf/ean/v19n4/en_1414-8145-ean-19-04-0557.pdf doi: 10.5935/1414-8145.20150074

9. Tavares TS, Castro AS, Figueiredo ARFF, Reis DC. Evaluation of the implementation of the systematic organization of nursing care in a pediatric ward. Rev Min Enferm [Internet]. 2013 Apr-Jun [cited 2016 Dec 27];17(2):278-86. Available from: http://www.reme.org.br/artigo/detalhes/650doi: 10.5935/1415-2762.20130022

10. Gatti BA. Grupo focal na pesquisa em ciências sociais e humanas. Brasília: Liber Livro; 2012.

11. Camargo BV, Justo AM. IRAMUTEQ: Um Software Gratuito para Análise de Dados Textuais. Temas em Psicologia [Internet]. 2013 nov [cited 2016 Dec 27];21(2):513-8. Available from: http://pepsic.bvsalud.org/pdf/tp/v21n2/v21n2a16.pdfdoi: 10.9788/TP2013.2-16

12. Garcia AB, Dellaroza MSG, Haddad MCL, Pachemshy LR. Prazer no trabalho de técnicos de enfermagem do pronto-socorro de um hospital universitário público. Rev Gaúcha Enferm [Internet]. 2012 jun [cited 2016 Dec 27];33(2):153-9. Available from: http://www.scielo.br/pdf/rgenf/v33n2/22.pdfdoi: 10.1590/S1983-14472012000200022

13. Fischborn AF, Viegas MF. A atividade dos trabalhadores de enfermagem numa unidade hospitalar: entre normas e renormalizações. Trab Educ Saúde [Internet]. 2015 Sep-Dec [cited 2016 Dec 27];13(3):657-74. Available from: http://www.scielo.br/pdf/tes/v13n3/1981-7746-tes-13-03-0657.pdf doi: 10.1590/1981-7746-sip00060

14. Casafus KCU, Dell'Acqua MCQ, Bocchi SCM. Entre o êxito e a frustração com a sistematização da assistência de enfermagem. Esc Anna Nery [Internet]. 2013 abr-jun [cited 2016 Dec 27];17(2):313-21. Available from: http://www.scielo.br/pdf/ean/v17n2/v17n2a16.pdfdoi: 10.1590/S1414-81452013000200016

15. Maciel RHMO, Santos JBF, Rodrigues RL. Condições de trabalho dos trabalhadores da saúde: um enfoque sobre os técnicos e auxiliares de nível médio. Rev Bras Saúde Ocup [Internet]. 2015 jun [cited 2016 Dec 27];40(131):75-87. Available from: http://www.scielo.br/pdf/rbso/v40n131/0303-7657-rbso-40-131-75.pdf doi: 10.1590/0303-7657000078613

16. Salvador PTCO, Santos VEP. Participation of the nursing technician at the systematization of nursing assistance: integrative literature review. Rev enferm UERJ [Internet]. 2013 Dec [cited 2016 Dec 27];21(esp2):818-23. Available from: http://www.e-publicacoes.uerj.br/index.php/enfermagemuerj/article/view/12301/9579 doi: 10.12957/reuerj.2013.12301