

## The nursing professionals' knowledge with regards to the nursing care systematization

Conhecimento dos profissionais de enfermagem sobre a sistematização da assistência de enfermagem

Conocimiento de los profesionales de enfermería sobre la sistematización de la asistencia de enfermería

Rachel Mola<sup>1</sup>, Megliane Lopes Dias<sup>2</sup>, Josely de França Costa<sup>3</sup>, Flávia Emília Cavalcante Valença Fernandes<sup>4</sup>, Gerlene Grudka Lira<sup>5</sup>

### How to cite this article:

Mola R, Dias ML, Costa JF, Fernandes FECV, Lira GG. The nursing professionals' knowledge with regards to the nursing care systematization. Rev Fun Care Online. 2019 jul/set; 11(4):887-893. DOI: <http://dx.doi.org/10.9789/2175-5361.2019.v11i4.887-893>.

### ABSTRACT

**Objective:** The study's purpose has been to assess the Nursing professionals' knowledge concerning the Nursing Care Systematization (NCS). **Methods:** It is a descriptive-exploratory and analytical study with a quantitative approach, which was carried out with 105 nursing professionals in a University Hospital over the period from January to May 2017. A semi-structured questionnaire was used and the data was presented by descriptive and analytical statistics, adopting 5% significance and 95% confidence. The Mann-Whitney, Fisher's Exact and Person's Chi-square tests were used for bivariate association. The research was approved by the Research Ethics Committee under the *Certificado de Apresentação para Apreciação Ética (CAAE)* [Certificate of Presentation for Ethical Appreciation] No. 57875216.2.0000.5207. **Results:** The sample was comprised of 74.3% Nurse Technicians and 25.7% Nurses, with female prevalence, single, who did not do any specialization on NCS. **Conclusion:** There are gaps regarding the NCS understanding, therefore, it is necessary to improve teaching in institutions of technical and higher education in order to stimulate the professional qualification and training, aiming to use the instruments related to the Nursing Process.

**Descriptors:** Nursing legislation, nursing process, nursing theory, knowledge.

- 1 Nota de rodapé do 1: Nursing Graduate by the Universidade Federal de Pernambuco (UFPE), MSc in Hebiatrics by the UPE, PhD student enrolled in the Associated Nursing Postgraduate Program by the UPE/UEPB, Assistant Professor at UPE (Petrolina Campus).
- 2 Nursing Graduate by the Universidade de Pernambuco (UPE), (Petrolina Campus).
- 3 Nursing Graduate by the Universidade de Pernambuco (UPE), (Petrolina Campus).
- 4 Nursing Graduate by the UPE, MSc in Health Management and Economics by the UFPE, PhD student in Therapeutic Innovation by the Universidade Federal de Pernambuco (UFPE), Assistant Professor at Universidade de Pernambuco (UPE), (Petrolina Campus).
- 5 Nursing Graduate by the UPE, MSc in Health Sciences by the Universidade Federal de Pernambuco (UFPE), Assistant Professor at Universidade de Pernambuco (UPE), (Petrolina Campus).

## RESUMO

**Objetivo:** Avaliar o conhecimento dos profissionais de enfermagem sobre Sistematização da Assistência de Enfermagem (SAE). **Métodos:** Pesquisa exploratória, quantitativa, descritiva e analítica, realizada com 105 profissionais de enfermagem assistenciais em Hospital Universitário no período de janeiro a maio de 2017. Foi aplicado questionário semiestruturado cujos dados foram apresentados por estatística descritiva e analítica adotando-se 5% de significância e 95% de confiança. Foram utilizados os testes de Mann-Whitney, Exato de Fisher e Qui-quadrado de Person para associação bivariada. Pesquisa aprovada pelo Comitê de Ética em Pesquisa, CAAE 57875216.2.0000.5207. **Resultados:** Amostra constituída de 74,3% Técnicos de Enfermagem e 25,7% Enfermeiros, prevalência do sexo feminino, solteiros, que não realizaram aperfeiçoamento sobre SAE. **Conclusão:** Existem lacunas no conhecimento sobre SAE, sendo necessário aprimorar o ensino nas instituições de formação técnica e superior e estimular a qualificação profissional e treinamento da equipe para utilização dos instrumentos relacionados ao Processo de enfermagem.

**Descritores:** Legislação de Enfermagem, Processo de Enfermagem, Teoria de Enfermagem, Conhecimento.

## RESUMEN

**Objetivo:** Evaluar el conocimiento de los profesionales de Enfermería sobre Sistematización de la Asistencia de Enfermería (SAE). **Métodos:** Investigación exploratoria, cuantitativa, descriptiva y analítica, realizada con 105 profesionales de Enfermería asistenciales en el Hospital Universitario en el período de enero a mayo de 2017. Se aplicó un cuestionario semiestruturado cuyos datos fueron presentados por estadística descriptiva y analítica adoptando el 5% de significancia y el 95% de confianza. Se utilizaron las pruebas de Mann-Whitney, Exacto de Fisher y Qui-cuadrado de Person para asociación bivariada. Investigación aprobada por el Comité de Ética en Investigación, CAAE 57875216.2.0000.5207. **Resultados:** Muestra constituida de 74,3% Técnicos de Enfermería y 25,7% Enfermeros, prevalencia del sexo femenino, solteros, que no realizaron perfeccionamiento sobre SAE. **Conclusión:** Existen lagunas en el conocimiento sobre SAE, siendo necesario mejorar la enseñanza en las instituciones de formación técnica y superior, estimular la cualificación profesional y entrenamiento del equipo para la utilización de los instrumentos relacionados al Proceso de Enfermería.

**Descritores:** Sistematización de la Asistencia de Enfermería, Legislación de Enfermería, Proceso de Enfermería; Teoría de Enfermería, Conocimiento.

## INTRODUCTION

Nursing Care Systematization (NCS) organizes nursing activities and the flow of care, providing support for the methodological development of interdisciplinary and humanized care practices. The NCS stipulates the type of professional required, techniques, procedures, methods, objectives and material resources for the production of care, as well as defining the nature and type of work to be performed.<sup>1</sup>

The Brazilian institutions of health, teaching and research in Nursing in the decades of 1970 to 1980, based on the Theory of Basic Human Needs, by Wanda de Aguiar Horta, began to implant the NCS as a way of providing a planned assistance, based on knowledge and care.<sup>2</sup>

Among the positive aspects of the application of NCS in health care facilities are: safety in the planning, execution and

evaluation of the Nursing conducts, the individualization of the assistance, visibility and autonomy for the nurse, reduction of hospitalization time and consequently resource saving. Even with visible advantages to the nursing staff, the patient, and consequently the hospital, the number of health facilities applying NCS is still not satisfactory.<sup>1</sup>

The Nursing Process is the dynamics of systematized and interrelated actions that aims and enables the organization of patient care. This systematization consists of five stages, as follows: Nursing History; Nursing Diagnostics; Assistance Plan; Nursing Prescription; Nursing Evolution.<sup>3</sup>

In order for an effective Nursing Process to occur, it was necessary to create a language of its own that is guided by the taxonomies used for the Nursing record. In 1990, the first issue of the North American Nursing Diagnosis Association International (NANDA - I) was published, which contains ready-made diagnoses divided into domains, classes and diagnoses.<sup>4</sup>

Some challenges are pointed to the implementation of NCS in institutions such as: the lack of recognition by the nursing team; the insufficient dimensioning of nursing professionals in the institutions; at the same time, carrying out this process requires the professional to have a scientific basis, knowledge, skills and attitudes based on the ethical commitment, the responsibility to take care of the care on the other.<sup>5</sup>

The implementation of the NCS is a requirement for both public and private healthcare institutions throughout Brazil, legally supported by the *Conselho Federal de Enfermagem (COFEN)* [Federal Nursing Council] present in the Law of Professional Exercise, the Nursing Professional Code of Ethics and by the Resolution No. 358/2009 which regulates the NCS.<sup>6</sup>

The identification of the level of knowledge of the Nursing team about the NCS is of fundamental importance to propose solutions that contribute to its feasibility, with the purpose of improving this methodology of work, since the model adopted to carry out the NCS demonstrates the intention of increase the quality of care provided to inpatients and enrich the practice of professionals, increasing their performance in this process.

Aiming to clarify the importance of the care systematization at all levels of nursing care, this study meant to assess the Nursing professionals' knowledge concerning the NCS, in a University Hospital from the Northeastern backwoods of *Pernambuco* State.

## METHODS

It is a descriptive-exploratory and analytical study with a quantitative approach that was performed in a large university hospital located in *Petrolina* city, *Pernambuco* State. The service is provided in a referral hospital for neurology/neurosurgery and orthopedics trauma, which is currently administered by the *Empresa Brasileira de Serviços Hospitalares (EBSERH)*<sup>7</sup> [Brazilian Company of Hospital Management] and has approximately 339 nursing professionals, technical level (239) and superior level (100).<sup>8</sup>

The sample was of the non-probabilistic type composed of 105 Nursing professionals of a technical and superior

level, who work in the said institution. Individuals of both genders, with at least one year of care experience, were employed in the sectors where there is direct assistance to the patient (emergency - reception, blue room and red room, yellow room, green room, therapy unit medical clinic, surgical clinic, orthopedic and ambulatory).

Professionals who during the collection period were on vacation or professional leave, and also those who carried out exclusively bureaucratic/managerial activities were then excluded.

Data collection was performed from January to May 2017. Participants answered a self-administered semi-structured questionnaire considering the following variables: 1) sociodemographic data: gender, age, marital status, family income, 2) profession: position in the institution, qualification, professional time, time in care assistance, municipality of professional training, municipality of performance in the last year, if has specialization on NCS and if the institution offers training on NCS, and 3) questionnaire with seven objective questions on NCS.

The questions of the data collection instrument had the following knowledge specificities: 1<sup>st</sup> question - recognition of the Theory of Interpersonal Relations of Hildegard Peplau; 2<sup>nd</sup> - definition of the Theory of Basic Human Needs; 3<sup>rd</sup> - correct sequence of steps in the Nursing Process; 4<sup>th</sup> - definition of Nursing Diagnosis by NANDA Taxonomy; 5<sup>th</sup> - on the legal obligation to implement the Nursing Process in public and private establishments that perform Nursing professional care; 6<sup>th</sup> - definition of each stage of the Nursing Process; 7<sup>th</sup> - on the attribution of Nurses regarding Nursing Prescription according to *COFEN* legislation.

Conclusively, the questions were grouped into three categories of analysis according to the theme - Nursing Theories (questions 1 and 2); Nursing Process (questions 3, 4 and 6); Legislation focused on NCS (issues 5 and 7).

The database was built by double entry through the statistical data package Stata version 12.0 and the MS-Excel program, in its 2010 version for Windows 8. Statistical analysis was performed by means of the frequency distribution with expressed values in absolute and relative numbers and descriptive statistics by means of central tendency and dispersion measures as mean and standard deviation. The confidence intervals were calculated for mean and for proportion assuming binomial distribution. Fisher's Exact Test was used for categorical variables and the Person's Chi-square for categorical variables. The non-parametric Mann-Whitney test was applied for age considering the non-normality of the distribution by the Shapiro Wilk test. For all tests, the significance level of 5% and 95% confidence were adopted.

The research was approved by the Research Ethics Committee from the *Universidade de Pernambuco (UPE)*, under the *Certificado de Apresentação para Apreciação Ética (CAAE)* [Certificate of Presentation for Ethical Appreciation] No. 57875216.2.0000.5207 and received consent from the University Hospital. Participants were advised of the purpose of the study and invited to sign the Free and Informed Consent Term in accordance with the Resolution No. 466/2012-CNS/CONEP.

## RESULTS

The final sample consisted of 105 Nursing professionals, whose mean age was 35.6 years old, average training time of 10.1 years and 9 years of care on average. Participants were predominantly female, single, with a family income of 2 to 3 minimum wages. Considering the sample collected, 74.3% were Nurse Technicians and 25.7% were Nurses. Concerning the profession, 53.3% said they had an intermediate level, 35.2% completed the course in the municipality of *Petrolina* and 88.6% worked in the last year in aforesaid municipality. 68.6% of the professionals stated that the institution offers training on NCS, 57.1% did not do any specialization on NCS up to now (**Table 1**).

**Table 1** - Sociodemographic and professional data of the Nursing team from a University Hospital. *Petrolina* city, *Pernambuco* State, 2017.

	Average	SD	CI95%	
<b>Age</b>	35.6	7.7	34.1	37.1
<b>Professional time</b>	10.1	6.5	8.8	11.3
<b>Time in care assistance</b>	9.0	6.7	7.7	10.2
<b>Variable</b>	<b>n</b>	<b>%</b>	<b>CI95%</b>	
<b>Gender</b>				
Female	84	80.0	72.2	87.8
Male	21	20.0	12.2	27.8
<b>Marital status</b>				
Single	42	40.0	30.5	49.5
Married	41	39.1	29.6	48.5
Divorced	10	9.5	3.8	15.2
Common-law marriage	8	7.6	2.5	12.8
Widow	4	3.8	0.1	7.5
<b>Family income in MW*</b>				
0 to 1 MW	3	2.9	-0.4	6.1
1 to 2 MW	7	6.7	1.8	11.5
2 to 3 MW	37	35.2	25.9	44.5
3 to 5 MW	35	33.3	24.2	42.5
More than 5 MW	23	21.9	13.9	29.9
<b>Position in the institution</b>				
Nurse	27	25.7	17.2	34.2
Nurse technician	78	74.3	65.8	82.8
<b>Qualification (Education)</b>				
High school	56	53.3	43.6	63
College degree	24	22.9	14.7	31
Specialization	23	21.9	13.9	29.9
Master's degree	2	1.9	-0.8	4.6
<b>Municipality of professional training</b>				
Other	68	64.8	55.5	74.1
<i>Petrolina</i>	37	35.2	25.9	44.5
<b>Municipality of performance in the last year</b>				
Other	12	11.4	5.2	17.6
<i>Petrolina</i>	93	88.6	82.4	94.8
<b>Specialization on NCS</b>				
No	60	57.1	47.5	66.8
Yes	45	42.9	33.2	52.5
<b>The institution offers training on NCS</b>				
No	33	31.4	22.4	40.5
Yes	72	68.6	59.5	77.6

\*Minimum Wage (MW) in 2017 R\$ 937.00

**Table 2** describes the right and wrong answers of the seven-question instrument applied to the participants. The recognition of the Theory of Interpersonal Relations was the issue that obtained the highest percentage of errors (87.6%), followed by the correct sequence of steps in the Nursing Process (61.0%). The highest percentage of correct answers was related to the legal obligation to implement the Nursing Process in public and private establishments that perform Nursing professional care (94.3%), followed by the Nursing assignment related to Nursing Prescription according to COFEN legislation (73.3%).

**Table 2 -** The Nursing professionals' responses about the Nursing Theory, the Nursing Process and the Legislation on Nursing Care Systematization. *Petrolina* city, *Pernambuco* State, 2017.

Question (n 105)	n	% CI95%		
<b>Knowing the Hildegard Peplau's Theory of Interpersonal Relations</b>				
Wrong	92	87.6	81.2	94.0
Right	13	12.4	6.0	18.8
<b>Definition of the Theory of Basic Human Needs</b>				
Wrong	51	48.6	38.9	58.3
Right	54	51.4	41.7	61.1

Question (n 105)	n	% CI95%		
<b>The correct sequence of steps in the Nursing Process</b>				
Wrong	64	61.0	51.5	70.4
Right	41	39.1	29.6	48.5
<b>Definition of the Nursing Diagnosis by NANDA Taxonomy</b>				
Wrong	49	46.7	37.0	56.4
Right	56	53.3	43.6	63.0
<b>Regarding the legal obligation to implement the Nursing Process in both public and private establishments that carry out nursing care</b>				
Wrong	6	5.7	1.2	10.2
Right	99	94.3	89.8	98.8
<b>Definition of each step of the Nursing Process</b>				
Wrong	43	41.0	31.4	50.5
Right	62	59.1	49.5	68.6
<b>Regarding the Nurses' duty related to Nursing Prescription according to the COFEN</b>				
Wrong	28	26.7	18.1	35.3
Right	77	73.3	64.7	81.9

The bivariate association between the questionnaire responses and the sociodemographic and professional training data of the participants were statistically significant in all categories for variables family income, institution function, and degree. The Nursing Process category also maintained statistical significance when associated to the average age, according to **Table 3**.

**Table 3 -** Bivariate association between the three established categories and the sociodemographic and professional data of the Nursing team from a University Hospital. *Petrolina* city, *Pernambuco* State, 2017.

Variable	Nursing Theories			Nursing Process			Nursing Legislation about the NCS								
	Wrong	Right	p-value	Wrong	Right	p-value	Wrong	Right	p-value						
<b>Average age</b>	36.1	32.7	0.1202*	36.7	32.1	<b>0.0059*</b>	37.3	34.9	0.3946*						
<b>Average professional time</b>	10.3	8.6	0.3173*	10.7	8.0	0.2266*	11.1	9.6	0.3805*						
<b>Average time in care assistance</b>	9.2	7.5	0.3341*	9.6	6.8	0.1428*	10.4	8.4	0.2256*						
<b>Gender</b>	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>	<b>p-value</b>	<b>n</b>	<b>%</b>	<b>n</b>	<b>%</b>	<b>p-value</b>					
Female	74	80.4	10	76.9	0.721**	66	81.5	18	75.0	0.486***	27	87.1	57	77.03	0.294**
Male	18	19.6	3	23.1		15	18.5	6	25.0		4	12.9	17	22.97	
<b>Marital status</b>															
Single	39	42.4	3	23.1	0.307**	32	39.5	10	41.7	0.868**	13	41.94	29	39.19	0.129**
Married	33	35.9	8	61.5		30	37.0	11	45.8		9	29.03	32	43.24	
Divorced	8	8.7	2	15.4		8	9.9	2	8.3		2	6.45	8	10.81	
Common-law marriage	8	8.7	0	0		7	8.6	1	4.2		4	12.9	4	5.41	
Widow	4	4.4	0	0		4	4.9	0	0		3	9.68	1	1.35	
<b>Family income in MW*</b>															
0 to 1 MW	2	2.2	1	7.7	<b>0.005**</b>	3	3.7	0	0	<b>0.025**</b>	2	6.45	1	1.35	<b>0.000**</b>
1 to 2 MW	7	7.6	0	0		6	7.4	1	4.2		4	12.9	3	4.05	
2 to 3 MW	37	40.2	0	0		34	42.0	3	12.5		14	45.16	23	31.08	
3 to 5 MW	29	31.5	6	46.2		24	29.6	11	45.8		11	35.48	24	32.43	
More than 5 MW	17	18.5	6	46.2		14	17.3	9	37.5		0	0	23	31.08	
<b>Position in the institution</b>															
Nurse	19	20.7	8	61.5	<b>0.002***</b>	13	16.1	14	58.3	<b>0.000***</b>	0	0	27	36.49	<b>0.000**</b>
Nurse technician	73	79.4	5	38.5		68	84.0	10	41.7		31	100	47	63.51	
<b>Qualification (Education)</b>															
High school	53	57.6	3	23.1	<b>0.006**</b>	51	63.0	5	20.8	<b>0.000**</b>	23	74.19	33	44.59	<b>0.004**</b>
College degree	22	23.9	2	15.4		19	23.5	5	20.8		7	22.58	17	22.97	
Specialization	16	17.4	7	53.9		11	13.6	12	50.0		1	3.23	22	29.73	
Master's degree	1	1.1	1	7.7		0	0	2	8.3		0	0	2	2.7	

Variable	Nursing Theories			Nursing Process			Nursing Legislation about the NCS								
	Wrong	Right	p-value	Wrong	Right	p-value	Wrong	Right	p-value						
<b>Municipality of professional training</b>															
<i>Petrolina</i>	59	64.1	9	69.2	1.000**	50	61.7	18	75.0	0.232***	20	64.52	48	64.86	0.973***
Other	33	35.9	4	30.8		31	38.3	6	25.0		11	35.48	26	35.14	
<b>Municipality of performance in the last year</b>															
<i>Petrolina</i>	10	10.9	2	15.4	0.642**	10	12.4	2	8.3	0.729**	4	12.9	8	10.81	0.745**
Other	82	89.1	11	84.6		71	87.7	22	91.7		27	87.1	66	89.19	
<b>Specialization on NCS</b>															
No	53	57.6	7	53.9	0.797***	48	59.3	12	50.0	0.421***	18	58.06	42	56.76	0.902***
Yes	39	42.4	6	46.2		33	40.7	12	50.0		13	41.94	32	43.24	
<b>The institution offers training on NCS</b>															
No	28	30.4	5	38.5	0.560***	25	30.9	8	33.3	0.819***	11	35.48	22	29.73	0.562***
Yes	64	69.6	8	61.5		56	69.1	16	66.7		20	64.52	52	70.27	

\*Mann-Whitney

\*\*Fisher's Exact

\*\*\*Person's Chi-square

## DISCUSSION

The results of this research evidenced the prevalence of the female gender in the composition of the Nursing teams, corroborating with data published at national level, in which women also represent the majority of Nursing professionals. However, this profile has undergone changes over time, with a tendency of masculinization of the category registering the increasing presence of men in the profession.<sup>9</sup>

The average age of the sample is represented by a population predominantly of young adults. This result may be related to the increase in the offer of Nursing courses in Brazil, be it either superior or technical level, consequently increasing the opportunity of titling in this sense and initiation in the labor market in the area.<sup>10-1</sup>

The profile of the respondents of this research presented a monthly income above two minimum wages. There was an improvement in monthly income when compared to the year 2013, where professionals received sub-wages of up to R\$ 2,000.00.<sup>12</sup> It is important to note that the *EBSERH* offers the best salary to the nursing professional when compared to salaries paid from philanthropic and private institutions.<sup>13</sup>

*EBSERH* started to administer the hospital under study in 2014, and it is based on a public tender to fill vacancies and the formation of a reserved register in effective employment under a legal regime established by the *Consolidação das Leis do Trabalho (CLT)* [Brazilian Labor Laws Consolidation].

Considering the labor regime of this company and the wage offer, it is possible to infer that the professionals of the category present greater economic stability.<sup>13</sup> There is an increasing interest in becoming a civil servant manifested by a portion of the population.<sup>14</sup>

Regarding the identification of nursing professionals' knowledge, the category that presented the most errors

was related to Nursing Theories. Studies show the lack of knowledge of professionals about this subject, where there is a difficulty of exposing them with a coherent appropriation with these same theories.<sup>15</sup> A study carried out in *São Paulo* revealed a low knowledge about Nursing Theories and little adherence to a directed practice and based on scientific knowledge, making professional practice mechanistic and empirical.<sup>16</sup>

This reality may be related to the factors that hinder this process, such as work overload, reduced time, work environment with inadequate physical structure, lack of systematized instruments and resistance by the professionals.<sup>17-8</sup>

Usually, the nursing professional is guided by medical prescription, making their participation in decision making seem unnecessary, clearly reflecting the lack of accreditation and appreciation of the nursing prescription by the team itself.<sup>17</sup>

Although the majority of professionals correctly identified the definition of each stage of the Nursing Process in this research, the result was opposite in relation to the ordering of the same legally established ones. A study carried out in the *Rio Grande do Sul* State found that although the professionals had knowledge about the nursing process, they were not able to adequately define it.<sup>19</sup> This phenomenon may be related to non-use of Nursing Process in all its stages, in its completeness and systematics.<sup>20-1</sup>

The phases of the Nursing Process are the bases for the actions of individualized and humanized care. Systematic practice improves the quality of care and also contributes to the recognition of the importance of nursing actions at any level of health care.<sup>22</sup>

On the other hand, when it comes to the professionals' knowledge about the legislation that governs NCS, the sample obtained a higher percentage of correct answers.

Thus, there is an understanding of what defines the legislation that regulates the practice of the profession, as well as the obligation of the NCS in establishments that use professional nursing care.<sup>23</sup> Nevertheless, following this research, although it is mandatory, the NCS is still underutilized.<sup>24</sup>

The bivariate association between age and percentage of correctness of all categories was prevalent among younger individuals. Nonetheless, this association was statistically significant only for the category that approached aspects of the Nursing Process. It is suggested for this research that younger individuals who are inserted in the labor market acquired more recent knowledge coming from the graduation whose contents on the subject could have been more explored when compared to professionals with an older formation.

The association in the three categories discussed in this study was significant for the family income variable, and the highest percentage of correct answers was for individuals whose remuneration was higher than three minimum wages. The level of income is a factor that can generate influences on the theoretical knowledge of the individual, considering that throughout the life cycle of the professional, the remuneration changes according to the level of education; therefore, seeking professional stability also seeks better qualification and comprehensiveness of knowledge.<sup>25</sup>

The role played by the institution was also a factor that also showed a significant difference between the answers of the questions in all categories, where, despite the fact that Nursing technicians represent the largest number of professionals surveyed, they obtained more errors in the questions of the instrument. A study carried out in *Minas Gerais* State evidenced the lack of knowledge of technical professionals regarding NCS; and those who demonstrated that they knew the NCS, although they worked as technicians, had or were doing a superior level of Nursing, having contact with the undergraduate subjects.<sup>26</sup> Becoming evident the need to include the NCS in the curriculum of the Nursing technical courses.

The association in the three categories addressed in this study was significant for the variable maximum titration of the professional. However, regardless of the level of titration presented, the questions related to Nursing Theories obtained a greater amount of errors while the ones related to the Nursing legislation on the NCS accumulated more right answers.

The Nursing profession is regulated by laws and legal norms, as well as other professions, this reality requires of its members, in particular, the Nurse, the concern and obligation to be interested in the study of the legislation.<sup>27</sup> This affirmation being reinforced by the Art. 3 of the Civil Code and the Art. 21 of the Criminal Code, which demonstrate the indesculpability principle in Brazilian law.

The study states that there is little or no supervision to fulfill the obligation of NCS by the professionals.<sup>17</sup> They agreed that the non-use of the Nursing Process compromises the quality of care provided, negatively inferring the professional-client interaction.<sup>28</sup> Furthermore, they read little about Nursing Theories being considered

philosophical contents. Thus, they give priority to studying subjects related to practical care or that have relation to the clinical condition of the patient.<sup>29</sup>

When the time of formation of the studied population was analyzed, it was noticed that the group of more successful had, in the three categories, a lower mean of training time than the group of errors. The same phenomenon occurred in the variable time of assistance, the wrong answers obtained averages of service time over nine years while the right answers had averages below nine years.

The male gender presented, proportionally, a greater percentage of correct answers than the female sex, in all categories. Married individuals obtained a higher percentage of correct answers in all categories, followed by single individuals.

Nurses did not give the wrong answer with regards to the question of the Nursing legislation about the NCS, so they were aware of the obligation of using the NCS in public and private institutions.

Some limitations were faced to carry out this research. The main difficulty was related to the access of the Nursing team to answer the collection instrument; most of them reported lack of time in the face of work overload. Moreover, the collection was performed in a single institution, and it was not possible to extrapolate the results found.

This study was relevant since the knowledge of the Nursing team about the NCS interferes directly with the individualized and integrated care of the patient; additionally, care without solid scientific theoretical basis and without collective awareness of its importance makes care mechanized and focused only on fulfilling the employee's obligations.

## CONCLUSIONS

The results of this research showed a profile of predominantly single professionals, with a monthly income of two to three minimum wages, female, average age, professional time and performance were respectively 35.6; 10.1 and 9 years. The majority reported not having done any specialization about the Nursing Care Systematization.

Bearing in mind the answers to the questionnaire, most of the answers related to the questions that addressed the legal obligation of the Nursing Process, while the most prevalent errors were related to the identification of Interpersonal Relations Theory.

The variables family income, institution function, and qualification were statistically significant in all categories of the bivariate association showed in this study. Furthermore, the variable associated with the average age obtained statistical significance only in the Nursing Process category.

This study evidenced the limitations regarding the knowledge about the NCS that the nursing professionals have, and it is necessary to improve its teaching in the training institutions of nurse technicians and nurses. Moreover, it is necessary to stimulate professional qualification, continuous education, and also provide good professional training to the team aiming to use the instruments.

## REFERENCES

1. Santos WN. *Systematization of nursing care: the historical context, the process and obstacles to deployment*. J. Manag. Prim Health Care, 2014; v.5 n.2 p.153-8.
2. Neco KKS. et al. *Sistematização da assistência de enfermagem em instituições de saúde no Brasil: revisão integrativa*, Rev enferm UFPE on line; Recife, jan., 2015; 9(1):193-200.
3. Horta WA. *Processo de Enfermagem*. São Paulo; EPU, 1979.
4. Carpenito LJ. *Diagnósticos de enfermagem: aplicação a prática clínica*, 11ª ed; Porto Alegre, Artmed, 2009; p 25.
5. Meneses SRT, Priel MR, Pereira LL. *Autonomia e vulnerabilidade do enfermeiro na prática da Sistematização da Assistência de Enfermagem*. Rev. esc. enferm. USP São Paulo, ago, 2011; v.45, n.4.
6. COFEN. Resolução COFEN-358/2009. Brasília, 2009. Available at: [http://www.cofen.gov.br/resolucao-cofen-3582009\\_4384.html](http://www.cofen.gov.br/resolucao-cofen-3582009_4384.html) Acesso em: 22/06/2017.
7. Ministério da Educação. *EBSERH Hospitais Universitários Federais. Hospital Universitário da Universidade do Vale do São Francisco*. Brasília, 2016. Available at: <http://www.ebserh.gov.br/web/hu-univasf>. Acesso em: 16 de Junho de 2017.
8. CNES - Cadastro Nacional dos Estabelecimentos de Saúde, DATASUS. Available at: <http://cnes.datasus.gov.br>. Acesso em: jun de 2017.
9. COREN-SP. Conselho Regional de Enfermagem de São Paulo. *Cresce a presença masculina na Enfermagem*. Enfermagem revista. abr, 2014; 48-51. Available at: [http://portal.corensp.gov.br/sites/default/files/48\\_homem\\_na\\_enfermagem.pdf#overlay-context=node/39376](http://portal.corensp.gov.br/sites/default/files/48_homem_na_enfermagem.pdf#overlay-context=node/39376). Acesso em: 07 de jun. de 2017.
10. Instituto Brasileiro de Geografia e Estatística – IBGE. *Síntese de Indicadores Sociais Uma análise das condições de vida da população brasileira 2015*. Rio de Janeiro – RJ, 2015. ISSN 1516-3296.
11. Machado MH, et al. *Características gerais da enfermagem: o perfil sociodemográfico*. Enferm. Foco RJ, 2016; 7 (ESP): 09-14.
12. Fiocruz. Conselho Federal de Enfermagem. Conselho Regional de Enfermagem. Perfil da Enfermagem no Brasil. Brasília 2016.
13. Ministério da Educação. *EBSERH Hospitais Universitários Federais. Plano de cargos, carreiras e salários*. Diretoria de gestão de pessoas. Brasília, 2016. Available at: [www.ebserh.gov.br/web/portal-ebserh/empregados](http://www.ebserh.gov.br/web/portal-ebserh/empregados). Acesso em: 16 de Junho de 2017.
14. Macêdo DF, Gomes CMF, Costa ACS, Finger AB. *Análise do concurso público como instrumento de seleção de pessoal no setor público: percepção de um grupo de servidores de instituições federais de ensino superior*. Sociais e humanas; Santa Maria, 2016 jan/abr; 29(1):92-110.
15. Lima DWC, Silveira LC, Vieira AN, Cunha BMC, Almeida ANS, Guerreiro EM. *Referenciais teóricos que norteiam a prática de enfermagem em saúde mental*. Esc. Anna Nery. 2014; 18(2):336-42.
16. Moreira, LHD. *Identificação das principais teorias de enfermagem utilizadas nos diferentes níveis de atenção à saúde no município de Assis-SP*. FEMA. Monografias. SP, 2016.
17. Felix NN, Rodrigues CDS, Oliveira VDC. *Desafios encontrados na realização da Sistematização da Assistência de Enfermagem (SAE) em unidade de pronto atendimento* Arq Ciênc Saúde 2009 out-dez; 16(4):155-60.
18. Silva EGC, Oliveira VC, Neves GBC, Guimarães TMR. *O conhecimento do enfermeiro sobre a Sistematização da Assistência de Enfermagem: da teoria à prática*. Rev Esc Enferm USP 2011; 45(6):1380-6.
19. Matté VM, Thofhern MB, Muniz, RM. *Opinião dos enfermeiros quanto à aplicabilidade do processo de enfermagem em uma unidade de tratamento intensivo*. R. gaúcha Enferm. Porto Alegre, jan 2001; v.22, n.1, p.101-21.
20. Reppetto MA, Souza MF. *Avaliação da realização do registro da sistematização da assistência de enfermagem em um hospital universitário*. Rev Bras Enferm. SP, 2005 maio-jun; 58(3):325-9.
21. Lima FET; Mendonça LBA, Farias LMVC, Pinheiro FR, Dantas KB. *Processo de Enfermagem: aplicação em hospitais de Fortaleza – Ceará*. 17º SENPE. Natal 2013.
22. Vasconcelos CP, Boaventura PP, Lima LR de et al. *Nurses' knowledge about Systematization...* Rev enferm UFPE on line. 2011 jan/fev; 5(1):10-9 16 ISSN: 1981-8963 DOI: 10.5205/reuol.1137-10464-1-LE.0501201102.
23. BRASIL. Ministério da Saúde. Conselho Federal de Enfermagem – COFEN. Resolução nº 358/2009. Dispõe sobre a Sistematização da Assistência de Enfermagem e a implementação do Processo de Enfermagem em ambientes, públicos ou privados, em que ocorre o cuidado profissional de Enfermagem. Brasília: Ministério da Saúde, 2009.
24. DUARTE APP, ELLENSOHN L. *A operacionalização do processo de enfermagem em terapia intensiva neonatal*. Rev Enferm UERJ, Rio de Janeiro, 2007 out-dez; 15(4): 521-6.
25. Bonadia PR. *A Relação Entre o Nível de Escolaridade e a Renda no Brasil*. Faculdade de Economia e Administração. São Paulo- SP. 2008.
26. Ruas LHS, Silva LMR, Aguiar MF, Costa FM. *Sistematização da assistência de enfermagem: conhecimento da equipe de enfermagem de uma unidade de terapia intensiva*. EFDeportes.com, Revista Digital. Buenos Aires, setembro 2013; Ano 18, nº 184.
27. Oguisso T, Schmidt MJ. *O exercício da Enfermagem: uma abordagem ético-legal*. 3.ed. Atual. e Ampl. Rio de Janeiro: Guanabara Koogan, 2010.
28. Andrade JSD, Vieira MJ. *Prática assistencial de enfermagem: problemas, perspectivas e necessidade de sistematização*. Rev. bras. enferm. [Internet]. 2005 june [cited 2017 jun 11]; 58(3): 261-5. Available from: [http://www.scielo.br/scielo.php?script=sci\\_arttext&pid=S003471672005000300002&lng=en](http://www.scielo.br/scielo.php?script=sci_arttext&pid=S003471672005000300002&lng=en). <http://dx.doi.org/10.1590/S0034-71672005000300002>.
29. Oliveira D, *Processo sistematizado de enfermagem fundamentado na teoria de Wanda Horta - possibilidades e limites*. Dissertação apresentada ao Programa de Pós Graduação em Enfermagem da Universidade Federal de Santa Catarina, 2001.

Received in: 01/08/2017

Required revisions: 12/09/2017

Approved in: 14/09/2017

Published in: 01/07/2019

**Corresponding author**

**Rachel Mola**

**Address:** Rodovia BR 203, Km 2, S/N – Vila Eduardo,

Petrolina, Pernambuco, Brazil

**Zip Code:** 56.328-903

**Telephone number:** +55 (87) 3866-6470

**E-mail address:** rachelmola@yahoo.com.br

**Disclosure: The authors claim to have no conflict of interest.**