Nurses’ knowledge about Nursing Care Systematization: from theory to practice

ABSTRACT
The objective of this study was to analyze the knowledge that nurses from a large hospital in Recife, Pernambuco, have about Nursing Care Systematization (NCS). This is a descriptive, exploratory, quantitative study. The study population consisted of 107 clinical nurses, with a sample of 73 (68%). Data collection was performed in June 2008, using a semi-structured questionnaire that was filled out by the subjects. We found that 50 (69%) nurses had no knowledge about NCS, especially about nursing diagnoses. We identified the absence of forms in most hospitalization units. The nurses gave several justifications for their not working with NCS, including work overload and the scarcity of forms. We concluded that there is a need for more incentives by the institution and through policies, so as to permit nurses a greater autonomy in their practice.

RESUMO
O objetivo deste trabalho foi analisar o conhecimento dos enfermeiros sobre a Sistematização da Assistência de Enfermagem (SAE) em um hospital de grande porte em Recife, Pernambuco. Realizou-se um estudo descritivo, exploratório e quantitativo. A população foi composta de 107 enfermeiros assistenciais com amostra de 73 (68%). A coleta de dados foi realizada em junho de 2008, através de um questionário semiestruturado preenchido pelos sujeitos. Verificamos que 50 (69%) não tinham conhecimentos sobre a SAE e especialmente sobre os diagnósticos de enfermagem. Constatamos ausência de formulários na maioria das unidades de internação. Os enfermeiros justificaram diversas razões para não trabalharem com a SAE, dentre elas, a sobrecarga de trabalho e escassez de formulários. Concluímos que existe a necessidade de maiores incentivos institucionais e políticos, de forma a permitir que o enfermeiro exerça a profissão com mais autonomia.

DESCRITORES
Nursing care
Knowledge
Nursing diagnosis
Nursing process

RESUMEN
El objetivo de este trabajo fue analizar el conocimiento de los enfermeros sobre la Sistematización de la Atención de Enfermería (SAE) en un hospital de gran porte en Recife, Pernambuco. Se realizó un estudio descriptivo, exploratorio y cuantitativo. La población se compuso de 107 enfermeras asistenciales con muestra de 73 (68%). La recolección de datos fue realizada en junio de 2008, a través de cuestionario semiestructurado rellenado por los sujetos. Verificamos que 50 (69%) no tenían conocimiento sobre la SAE, y especialmente sobre los diagnósticos de enfermería. Constatamos la ausencia de formularios en la mayoría de las unidades de internación. Los enfermeros esgrimían distintas razones para no trabajar con la SAE, entre ellas, la sobre-carga de trabajo y escasez de formularios. Concluimos en que existe la necesidad de mayores incentivos institucionales y políticos, a fin de permitir que el enfermero ejerza la profesión con mayor autonomía.

DESCRIPTORES
Atención de enfermería
Conocimiento
Diagnóstico de enfermería
Procesos de enfermería

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INTRODUCTION

Nursing Care Systematization (NCS) is defined as a method of providing care to obtain satisfactory results in the implementation of the care, with the aim of reducing complications during treatment, in order to facilitate the adaptation and recovery of the patient\(^2\). The use of the method requires critical thinking from the professional, which should be focused on the aims and guided by the results, in order to meet the needs of the patients and their families; requiring constant updating, skills and experience, and being guided by the ethics and standards of conduct. Therefore, it is a way of practicing the profession with autonomy based on technical and scientific knowledge in which the category has been developing in recent decades. To systematize, in the broad sense, is to reduce the various elements of a system, between which a relationship can be found or defined. During its scientific development, nursing has used some authors in order to bolster the empirical knowledge of the various activities performed in the quotidian, creating the models of nursing that shape the theories of the profession. To establish a model is to think in concepts applicable in the practice and represents an experimental concept prior to its application, which leads to the credibility of the practice, since it structures the development of the activities in a rational and systematic way, providing the operation with safety\(^2\).

In Brazil, the best known and followed model for the implementation of the nursing process was proposed in 1979\(^1\), which contains the following phases: a) Nursing history, b) Nursing diagnosis, c) Care plan, d) Nursing prescription, e) Nursing development and f) Nursing prognosis. Its application in clinical practice since then has undergone changes that have frequently neutralized its use\(^6\). The nomenclature as known and used today (NCS) is not the only way it can be referred to. According to the inserted context, purpose and the intended area, other terminology can be found, such as: the Nursing Process, the Care Process, Care Methodology, the Assistance Process, the Nursing Consultation\(^5\). The relevance is to comprehend that all these indicate the application of a scientific method for the planning of the nursing actions.

In order to organize the management of care on the basis of critical decision making and not merely arising from a series of trials and errors, which could offer the patient safety and participation in the actions established, steps were established that, in a general sense, correspond to the identification of the problem (this includes data collection and diagnostics) and the solution of the problem (by planning the response to be achieved, intervention and evaluation of the method employed). In didactic terms, these correspond to: Collection of information (History), Nursing diagnosis, Planning, Implementation and Evaluation\(^5\), which must be formally registered in the medical records of the client.

The issues relating to this theme currently continue to constitute an object of concern for nurses in different spheres of activity, whether teaching, research or care. There is a growing interest and involvement of professionals to implement the NCS in the various health institutions. However, the constant changes required for its execution show advances and reversals, with results that vary according to the local structure\(^4\). Although the Federal Council of Nursing\(^4\) has made the implementation of NCS obligatory, reinforcing the importance and need to plan nursing care, the COFEN Resolution No. 272/2002, art.2, states that The implementation of Nursing Care Systematization should occur in all health institutions, public and private. This has contributed to the nursing coordination calling for professionals to rethink the process and to bring the institutions up to the standards established; however, there are still various difficulties in its execution, which involve not only a lack of resources, but the way the professional appropriates knowledge\(^2\). Even with the support of the Council and of the entire professional class, it is knowledge that, despite having been introduced in Brazil in the 1970s, still presents a huge gap between its production and its application in the daily practice of the nurse\(^2\).

The application of NCS involves more than a sequence of steps to be followed, requiring from the professional greater familiarity with nursing diagnoses and sensitivity to adapt the needs of the client to the working conditions...
its implementation in the care quotidien in a large hospital, a reference in emergency care in the city of Recife, Pernambuco.

**METHOD**

The study was conducted in the Hospital da Restauração (HR), which is considered a large institution with a 535 bed capacity. It is governed by the Health Secretariat of Pernambuco and is located in the central area of the municipality of Recife. It is characterized as an emergency hospital, with a monthly average of 800 hospitalizations, 700 surgical procedures, 12,300 outpatients and 12,000 emergency procedures. The profile of nursing professionals of the HR consists of 286 nurses, 623 technicians and 558 auxiliary nurses distributed between the outpatient clinics, emergency services and inpatient units.

A descriptive, exploratory and quantitative study was conducted through the application, by the authors of the study, of a semi-structured questionnaire with the nurses stationed in the Inpatient Units of the HR, previously scheduled during the normal hours of activities. The inclusion criteria established was that the nurses be concerned with care activities and the exclusion criteria, the absence of the professional due to sick leave and vacations. Data collection was conducted from June to August 2008. The study population consisted of 107 care nurses stationed in the Inpatient Units. The sample was selected by convenience in order to gather individuals who were found to be available by the researcher at the time of the study and who fitted the established selection profile. The study proposed a sample of 60%. The study was approved by the Research Ethics Committee of the HR, Protocol No. 31.0.102.000-08. The participants were informed about the purpose of the study and invited to sign the Terms of Free Prior Informed Consent conforming with Resolution 196/96 of the National Health Council.

The questionnaire was validated, considering the internal consistency and content criteria. Concerning the internal consistency, a pilot test was conducted, in June 2008, with students of the eighth semester of the nursing course. Regarding the content, the instrument was analyzed by two professors of Nursing, specialists in evaluation of content and in methodology. The questionnaire was redesigned and made appropriate according to the changes suggested and the difficulties encountered in the testing, being formed of two parts (A) Identification Data (gender, age, length of training, length of service, post-graduation courses); (B) Script of subjective questions about the NCS. The key questions were: (1) Is there NCS training in the Hospital? (2) Do you think the nurse should work with NCS? Why? (3) Do you feel motivated to work with NCS? Why? (4) What are the steps of NCS? (5) What are the nursing diagnoses that you know? (6) What are the NCS forms that exist in your sector? (7) What are the NCS steps that you perform in the quotidien? (8) If there is any stage of NCS that you do not use, could you cite the reason?

The information was categorized and stored in an Excel® system spreadsheet and was statistically represented through graphs and tables characterizing the study sample in terms of knowledge and implementation of NCS in the care practice.

**RESULTS**

**Characterization of the sample**

The study was conducted with 73 (68%) of the care nurses of the Inpatient Units. Six professionals were excluded who were on special leave (health, maternity, paid and MSc study) and 11 who were on vacation. Seventeen nurses refused to participate in the study. The sample corresponded to 13 (18%) nurses from the Intensive Care Unit (ICU), 11 (15%) from the Pediatric Unit, 10 (14%) the Neurological Unit, 9 (12%) the Trauma Unit, 8 (11%) the Neurosurgery Unit, 8 (11%) the Pediatric ICU, 7 (10%) the Burn Unit (BU) and 7 (10%) from the Vascular Clinic.

Regarding the sociodemographic characteristics of the sample, a broad age range, of between 24 and 64 years, was found. The mean age was 37 ±0.9 years. The majority - 65 (89%) - were female and 28 (39.0%) were between 30 and 40 years. Concerning the time since professional qualification, 31 (42%) were found to have 10-20 years of academic qualification; 40 (55%) had worked in the institution for less than five years and 22 (30%) between 10 and 20 years. Regarding the level of qualification, the majority - 63 (86%) - had specialties and only two (3%) had MScs.

**Training, motivation and knowledge regarding NCS**

Initially, it was found that 39 (53%) of the respondents had received training regarding NCS in the institution studied. However, taking into consideration that the professional may have had prior knowledge of the method from studies or from other hospital experiences, they were asked if they knew about systematization before the training and it was found that 30 (41%) did not respond and only 24 (33%) presented prior knowledge. In relation to whether the nurse should work with NCS, it was found that the vast majority - 67 (92%) – felt that they should and, among the main benefits that justify the adherence to the method, 32 (44%) identified that it improves the quality of care and 13 (18%) that it promotes the autonomy of the professional. The professionals were asked to give only one response to facilitate the categorization of information (Figure 1).
Regarding the perception of the professionals about the importance of NCS, it was found that 55 (75%) considered it to be very important. However, 54 (74%) said they were not motivated to perform it. Several reasons were given for not working with the systematization. Among them those that stood out were: 54% - reduced number of professionals/workload/increased number of patients, 13% - inadequate conditions of the service and 4% - bureaucracy, with 67% of the problems being related to working conditions. The professionals were asked to give only one response to facilitate the categorization of information (Figure 2).

Concerning the knowledge of the steps of the NCS, it was found that 38 (52%) presented incomplete responses and only 23 (31.5%) described all the steps correctly. Regarding the Nursing Diagnoses, it was found that the majority - 50 (68%) - did not mention any diagnoses and did not apply them in their professional practice, showing a lack of knowledge about them. In relation to the 23 professionals who demonstrated knowledge of all the steps of NCS, it was identified that 10 (43.5%) worked in the general and pediatric ICU. In relation to the time since graduation, 9 (39%) had between five and 10 years of qualification and 5 (22%) less than five years. With regard to the length of time of practice in the institution, 16 (70%) had entered within the previous five years.

Existing forms and steps performed in the quotidían

Regarding the existence of NCS forms in the hospital studied, we found that 37 (50.7%) of the nurses responded that there were forms in the inpatient units during the performance of the study. The presence of complete forms was verified only in the answers of the nurses of the General ICU - 13 (17.8%) - and the Neurosurgical Unit - 8 (11.0%). It is emphasized that in the ICU the NCS is computerized and the records of the phases are stored on the computer, in a check-list format, which can be printed. It was also noted that in the Pediatric ICU - 8 (11.0%) - and in the Burn Unit - 7 (9.5%) - only the Nursing History form existed. In relation to the steps of NCS performed in the quotidían, it was found that 41 (56.2%)
of the professionals did not perform any of the phases. Only the nurses of the General ICU and of the Neurosurgical Unit performed all the steps of the method, being 9 (12.3%) and 5 (6.8%), respectively. It was observed that all - seven (9.6%) – of the respondents from the Burn Unit said that they performed the History step, as this was the only form available.

**DISCUSSION**

Nursing Care Systematization, while an organizational process, is able to offer support for the development of interdisciplinary and humanized care methods/methodologies. The care methodologies, whatever their denomination, currently represent one of the most important achievements in the field of nursing care. The professional imbued with this process requires, however, continuous broadening and deepening of the specific knowledge of their area of action, without forgetting the interdisciplinary and/or multidimensional focus\(^{10}\). However, to reach a consensus regarding the nursing work mode, the particularities of each health service must be considered and the classifications of diagnoses, interventions and expected outcomes made by mutual agreement, revising routines and validating the models of forms appropriate for each sector. It is in this way that it has been possible to successfully implement the systematization, according to experience reports\(^{11-12}\).

By analyzing the results obtained in this study, it was found that the nurses studied said they believed in the importance of NCS, which according to them, allows the improvement of the quality of care, promotes autonomy and unifies the language. However, the nurses highlighted various difficulties related to its execution, in fact, related to the inadequate working conditions. These results are similar to the difficulties found in several studies on the theme\(^{12-17}\). Regarding whether the nurse should work with NCS, it was found that the vast majority thought that they should. However, despite the professionals having responded affirmatively and defined systematization as a very important practice, 74% responded saying that they were not motivated to perform it. The lack of motivation among professionals was also identified in other studies, being related to factors linked to the professional and especially the political and institutional issues that hinder its implementation\(^{16-17}\).

The nurses want to practice all phases of NCS, planning, investigating, diagnosing and evaluating the interventions\(^{18}\). However, they cannot, because they find a series of factors throughout the pathway that distance the theory from the practice and discourage the professionals who, while acknowledging its relevance, do not actually experience it. Although the process is said to be implemented, what can be seen is a partial way of working, with the completion of one or other step\(^{12,16}\). It was found that half of the respondents had training in NCS in the institution and, even then, approximately 70% did not mention any nursing diagnosis and did not use them in the professional practice and 56% did not perform any of the steps of systematization. Similarly, other studies have found resistance in working with the method, low interest and a lack of involvement of the professionals, with the majority being unaware of the method\(^{13-17}\).

Knowledge is certainly of great importance for the professional operation of the nurse as it provides the professionals with security when making decisions related to the patient, to the team and to the administrative activities of the unit. This is reflected in the nursing team, since the nurse is the leader of this team. Therefore, the initiative to assume behavior and attitudes is closely related to the knowledge that the professionals possess, as this gives nurses the certainty that they are acting in the correct and most appropriate manner\(^{19}\). The nursing diagnosis is considered by some authors as one of the more complex steps, with many divergences in its realization. Nurses encounter great difficulty to implement it in their daily practice and other health professionals consider it unnecessary\(^{12,14}\). The failure to use NCS by the professionals is due to the distance between thinking and doing, between the theory and practice, mainly because the greater concern is with the demands of the service rather than with the quality of care\(^{16}\).

Regarding the 23 professionals who demonstrated knowledge about all the steps of NCS, it was found that the majority had been qualified for between 5-10 years and had been employed in the institution for less than five years; configuring a profile of recently hired nurses with little time since completion of their course. However, some authors, observing the qualification of the nurse, confirmed that the student leaves the graduation course without the broad knowledge needed to put into practice the specific method of their specialty, which would qualify their activity with the patients and give them confidence and security. Perhaps it is pertinent to question the extent to which the undergraduate education institutions have discussed and implemented measures to resolve this problem\(^{13}\).

The absence of NCS forms was verified in half of the inpatient units. It was found that even where they existed, some nurses stated that they did not use them, indicating care distanced from the theoretical foundation. The forms are important because they standardize the records and legally support the nursing actions. These notes must contain technical terms, in a logical and objective sequence, to allow the continuity of the planning of the care provided. To maintain the archives together with the medical records of the client is useful for research and teaching, data sourcing and for administrative processes\(^{120}\).

The systematization of actions would provide the nurse with autonomy\(^{13}\), however, this idea, when confronted with the reality of the current health system, be-
comes inconsistent, because of issues such as the labor market, relationships with other health professionals, the structure and political organization of health and education, as well as the social and economic relationships involved in the process, which also interfere with the desired autonomy. Therefore, to practice nursing with a methodological proposal requires knowledge, skill, support... However, above all, willingness and courage. Willingness to change, courage to change without fear.

**CONCLUSION**

The planning of nursing care ensures the responsibility to the client assisted, since this process allows the diagnosis of the needs of the client and the appropriate prescription of the care to be made. Furthermore, in addition to being applied to the care, it can guide the decision making in various situations experienced by the nurse as the manager of the nursing team, promoting the autonomy of the profession. However, to transform the reality of unplanned care involves more than the individual will of the nurses. A project must be developed to achieve this goal, in which the political will, the institutional involvement and the improvement of the working conditions are indispensable.

It was concluded that the nurses studied believed in the importance of NCS, which according to them, improves the quality of care, promotes autonomy and allows the unification of the language. However, it was verified that the majority of the professionals demonstrated a lack of knowledge about the systematization: 70% did not mention any nursing diagnoses and did not use them in the professional practice, and 56% did not perform any of the steps. The continuing absence of forms in approximately half of the inpatient units was also highlighted. The main reasons given for not implementing NCS are related, in fact, to inadequate working conditions.

**REFERENCES**


