

## EVALUATION OF THE IMPLEMENTATION OF THE SYSTEMATIC ORGANIZATION OF NURSING CARE IN A PEDIATRIC WARD

### AVALIAÇÃO DA IMPLANTAÇÃO DA SISTEMATIZAÇÃO DA ASSISTÊNCIA DE ENFERMAGEM EM UMA UNIDADE PEDIÁTRICA

### EVALUACIÓN DE LA IMPLEMENTACIÓN DE LA SISTEMATIZACIÓN DE LA ATENCIÓN DE ENFERMERÍA EN UNA UNIDAD PEDIÁTRICA

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## ABSTRACT

The Systematization of Nursing Care (in Portuguese, SAE) allows quality improvement in the care provided by the nursing staff. However, its implementation is still incipient in health services. The objective of this study was to evaluate the SAE implementation process in a pediatric unit of a university hospital. It was a case study with a quantitative approach. Data was collected from SAE forms and questionnaires completed by the nursing staff. The results revealed that the SAE implementation process faces difficulties, such as the nurses' heavy workload, the nursing technicians' lack of knowledge on the subject, and the low involvement of the health workers in the process. The implementation was further impaired by the inadequacies of the institutional forms, associated to their improper completion, and to lack of coordination between phases of the nursing process. The nursing technicians' inclusion in the execution of the SAE stages needs to be encouraged. Moreover the results demonstrated that the curriculum of technical courses should offer training on nursing processes and SAE, as well as addressing the technicians' competency. In conclusion, the SAE implementation process should take place in a context of participatory management; it should consider organizational aspects, such as the number of employees and the intensity of care required by the patients in the unit; it should also value the professionals' qualifications and their awareness about SAE.

**Keywords:** Nursing Process; Pediatric Nursing; Hospital Care; Process Assessment (Health Care); Nursing Management Team.

## RESUMO

A Sistematização da Assistência de Enfermagem (SAE) possibilita melhorar a qualidade do cuidado prestado pela equipe de enfermagem. Entretanto, sua implantação ainda é incipiente nos serviços de saúde. O objetivo com este estudo foi avaliar o processo de implantação da SAE em uma unidade pediátrica de um hospital universitário. Trata-se de um estudo de caso de abordagem quantitativa, no qual foram coletadas informações nos formulários institucionais destinados à SAE e aplicados questionários aos profissionais da equipe de enfermagem. Evidenciou-se que o processo de implantação da SAE enfrentou dificuldades relacionadas à sobrecarga de trabalho dos enfermeiros, à falta de conhecimento dos técnicos de enfermagem sobre o tema e ao pouco envolvimento dos profissionais da equipe nesse processo. A inadequação dos formulários institucionais destinados à SAE, associado ao seu preenchimento insatisfatório, e a falta de articulação entre as fases do processo de enfermagem também foram fatores que comprometem a implantação da SAE. Identificou-se a necessidade de maior inclusão dos técnicos de enfermagem na realização das etapas da SAE. Além disso, os resultados evidenciaram que o currículo dos cursos dos técnicos precisa contemplar conteúdos sobre o processo de enfermagem e a SAE, abordando as competências dos técnicos. Conclui-se que o processo de implantação da SAE deve ocorrer num contexto de gestão participativa, considerar aspectos organizacionais, como número de funcionários e intensidade de cuidado demandado pelos pacientes da unidade, além de valorizar a capacitação e sensibilização dos profissionais sobre esse sistema.

**Palavras-chave:** Processos de Enfermagem; Enfermagem Pediátrica; Assistência Hospitalar; Avaliação de Processos (Cuidados de Saúde); Equipe de Enfermagem.

## RESUMEN

La Sistematización de la Atención de Enfermería (SAE) permite mejorar la calidad de los cuidados brindados por el personal de enfermería. Sin embargo, su aplicación es aún incipiente en los servicios de salud. Este estudio tuvo como objetivo evaluar el proceso de implementación de la SAE en la unidad pediátrica de un hospital escuela. Se trata de un estudio de caso con enfoque cuantitativo. La recogida de datos se realizó a través de formularios institucionales de la SAE y de cuestionarios a los profesionales de enfermería. Los resultados indican que el proceso de implementación de la SAE enfrenta dificultades tales como sobrecarga de trabajo de los enfermeros, falta de conocimiento de los técnicos

*en enfermería y poca participación de los profesionales en el proceso. La inadecuación de los formularios institucionales asociada a la manera inadecuada de completarlos y la falta de articulación entre las etapas del proceso de enfermería también son obstáculos para alcanzar el éxito. Se observa la necesidad de mayor inclusión de los técnicos de enfermería en el proceso de sistematización de la atención. Además, los resultados indican que el plan de estudios de los cursos técnicos debe englobar contenidos que traten del proceso de enfermería y de la SAE y asimismo tratar de las competencias de sus técnicos. Se concluye que el proceso de implementación debe producirse dentro de un contexto de gestión participativa, considerar aspectos organizativos como cantidad de empleados e intensidad de los cuidados demandados por los pacientes de la unidad además de valorar la capacitación y concienciación de los profesionales acerca de la SAE.*

**Palabras clave:** Procesos de Enfermería; Enfermería Pediátrica; Atención Hospitalaria; Evaluación de Proceso (Atención de Salud); Grupo de Enfermería; Gerencia.

## INTRODUCTION

This study is part of the field of nursing research, aimed at improving the process of organization and planning of nursing care in the pediatric inpatient unit. In Brazil, among the theoretical contributions about the organization and planning of nursing care, there is the theory of Wanda Horta who, since the 1970s, proposed a model based on basic human needs aimed at achieving an adequate process for nursing care.<sup>1</sup>

The systematic organization of nursing care (SAE) is an exclusive activity of the nurse who uses the scientific method to identify situations of health – illness of individuals and to supports the actions of care, contributing to the promotion, prevention, recuperation and rehabilitation of health. The SAE enables the organization and directing of the work of nursing professionals in the method, personnel and instruments, enabling the operationalization of the Nursing Process (NP).<sup>2</sup>

The NP is an instrument that guides nursing care and the documentation of professional practice, integrating the SAE. The NP should be based on a theory that guides its steps.<sup>2</sup> According to the theory of Wanda Horta, the NP considers the assessment of the health status of the individuals by means of the history of health / disease and by conducting the physical examination, identification of the nursing diagnoses, development of a care plan, prescription of care, assessing the evolution and prognosis of the nursing care.<sup>2,3</sup> It is noteworthy that the SAE and the NP are inter-related, despite their conceptual and operational specificities, and when incorporated into the working process, they allow the organization and evaluation of nursing practice in order to improve it and guarantee the continuity of the information about care.<sup>4,5</sup>

In this sense, the performance of studies aimed at improving SAE implementation is opportune, because the systematization of care enables the creation of a universal language for nursing care, to identify its effectiveness and establish a quality standard.<sup>6</sup> Meanwhile, the implementation of SAE is still a challenge, because it is an incipient process in the health services, given difficulties, such as work overload associated with the deviations and uncertainty of the role of the nurse, the paucity of time for assistance given the insufficient number of professionals, and the lack of knowledge of the nursing team about the SAE.<sup>1,4,7,8</sup>

The implementation of SAE in everyday nursing care will be expanded and enhanced by institutional adoption of participatory management, in which nursing professionals have the ability to understand, construct or reconstruct their process of working, in partnership with managers.<sup>4</sup> It is believed that a participatory process, supported by discussions related to the challenges and opportunities of SAE utilization by the nursing staff, can break away from centralized, vertical and fragmented movements, through the implantation of the SAE.

In this context, the overall goal of this study was to evaluate the process of SAE implementation in a pediatric unit of a university hospital. Specifically, we sought to identify the perceptions of the nursing staff about SAE and its implementation, as well as to evaluate the application of the steps of the nursing process for nurses in a pediatric inpatient unit. The implementation of SAE in the pediatric unit is a challenge for the nursing staff, since it is a unit with unique aspects of the work process, such as joint hospitalization, chronic conditions that require long hospitalization, subsequent readmissions and patients with high dependency on nursing care, given the moment of their life cycle.

## METHOD

This was a descriptive and exploratory case study with a quantitative approach, about the process of implementation of SAE in a pediatric inpatient unit. The study was conducted between March and June 2010, in the pediatric unit of a large, public university hospital located in the state of Minas Gerais. The unit featured 60 beds, with joint hospitalization, primarily attending to the specialties of neurology, cardiology, hematology and oncology. Because it is a teaching hospital, care is provided by professionals, professors and students from different areas of health.

During this period, SAE was being implemented in all units of this hospital by the technical vice-directorate of nursing (VDTE), based on the theory of Wanda Horta. Three different printed documents were designed to make SAE viable: nursing history, nursing diagnosis, and the nursing prescription. These

printed documents, at the time of implementation of the SAE, were adapted for the reality of each unit of the hospital with the participation of the nurses.

The printed history was completed by the nurse only at the time of admission of the patient, with identifying information about the child or adolescent; reason for admission; history of health; information about basic human needs; physical examination data; examination data of interest for nursing; impressions of the nurse; in addition to expectations of the patient and the parents or relatives for nursing care and the proposed treatment.

On the nursing diagnosis document, the classification of NANDA International, Inc. (NANDA-I) was used and consisted of a list of nursing diagnoses, previously identified by nurses according to their prevalence in this unit; it was possible to add others, if necessary. The form allowed the nurse to define, in front of each diagnosis, if it was absent (A), present (P), improved (I), or resolved (R).

In the same way, the form of the nursing prescription consisted of a list of interventions, previously identified by nurses, with frequent care based on recurring nursing diagnoses in the unit. On this form, the nurse marked the necessary interventions and signaled schedules that should be performed by the nurse or nursing technician. If necessary, the nurse could add other interventions not provided in the list. The diagnosis and prescription documents were reevaluated every 24 hours. These documents, also, had data identifying the patient and the nurse who performed the NP.

The implementation process of the SAE in this hospital institution included two steps. In the first, workshops were conducted to raise awareness of the nursing team about SAE and for discussion of its theoretical and practical aspects. In the second, the VDTE provided assistance to nurses in the early days of the implementation, monitoring and discussing the realization of this process. In this pediatric unit, the deployment of the SAE was planned to occur in a gradual form, starting in November of 2009, until it reached all the beds in the unit. In the period of conducting this study, the systematization of care was applied to 20 beds (33.3%) of the 60 beds in the unit.

Of the 79 total professionals on the day and night shift nursing team in the unit investigated, 15 were nurses and 64 were nursing technicians. The study included 53 (67%) professional staff, of which 10 were nurses and 43 were nursing technicians. Losses were related to refusal to participate, absence from work during the period of data collection, and professionals who entered the pediatric unit after the implementation of SAE, in November of 2009. All professionals of the nursing team were informed about the objectives of the study and invited to participate, and those who agreed signed the Terms of Free and Informed Consent (TFIC).

Data collection was conducted in two phases. In the first, collection of information occurred from the institutional documents

destined for SAE, archived in the nursing records of the children or adolescents. The collection period was 15 days, and 13 (65%) of the 20 records provided for this phase of the implementation of SAE in the unit were evaluated. Seven records were excluded that did not contain records of activities of the SAE in the investigated period. Each record was evaluated for five consecutive days in order to identify the continuity of the application of SAE.

The researchers evaluated the documents of the history, diagnosis and prescription of nursing considering whether the fields of the documents were completed (yes, no and not applicable) and the adequacy of information in each field (yes, no/reason, and, is not applicable). The analysis of adequacy of the information was based on the verification of the correspondence between the information that should appear on each item and the completed data. Guidelines for completion, prepared by the VDTE for the documents with the information that should appear on each item, were used as reference. In addition, we recorded all diagnoses and nursing prescriptions in the period investigated.

In the second phase, the researchers administered a questionnaire to nurses and nursing technicians, study participants, about the self-reported level of knowledge about the SAE and the nursing process, adherence to implementation, facilitators and hindering factors perceived by them in the implementation of SAE in the unit. In addition to this information, the questionnaire contemplated sociodemographic data, training time and work in the area of pediatric nursing.

The data obtained in the collection from the forms of SAE and the questionnaires were stored in electronic spreadsheets in Excel<sup>®</sup> software, and analyzed using descriptive statistics, with calculation of absolute and relative frequencies. The data coming from the discursive question of the questionnaire about the concept of SAE was used to analyze the recurring themes identified in the responses.

The study was approved by the Nursing Department of the Maternal-Infant and Public Health Department of the School of Nursing of UFMG, by the Department of Teaching and Research (Depe) of the hospital and by the Coep/UFMG (Ethical protocol n° 0195.0.203.000-10). The phases of the study were developed respecting the determinations of the Resolution n°196/96 of the Ministry of Health, that regulated the research involving human beings.<sup>9</sup>

## RESULTS

### ASSESSMENT OF THE INSTITUTIONAL FORMS OF SAE

We evaluated 13 nursing history documents, completed by nurses in their initial evaluation of the child or adolescent. The results showed that of the total of these 13 nursing his-

tory documents, none were comprehensively and adequately completed, as items were identified with missing or inadequate completion.

High percentages of completion and adequacy of information were identified in the data of physical examination related to the head, such as the scalp, fontanelles and eyes (100%); presence of drains (100%); integrity of the perianal region (100%); engorgement of the jugular veins (92.3%); vital parameters, such as pulse (84.7%), respiratory rate (84.7%) and axillary temperature (76.9%). With similar percentages, historical information about proposed treatment (84.7%) and vaccination status (84.7%) were evaluated as adequately completed.

However, some items of the history and physical examination, despite also having a percentage of completion, around 70%, had percentages below 30% when analyzed as to the adequacy of the information on the item evaluated. For example, the item about the description of the perceptions and expectations of the user or caregiver about the treatment proposed had a percentage of 69.2% completion, but, all responses for that item described only the current complaints of the patient, which was considered inadequate. This is because the guideline for completing this item included, beyond the current complaints of the patient, previous experiences with illness and hospitalization, and the expectations of the patient or parents about health care and nursing.

Other items that showed discrepancy between the percentage of completeness and adequacy of information, respectively, in terms of insufficient data recorded, were: presence of physiological eliminations (76.9% and 23.1%); neurological or behavioral regulation (69.2% and 38.5%); general aspects about the child or adolescent (84.7% and 15.3%); evaluation of the thorax (76.9% and 0%), of the abdomen (100% and 7.7%), upper limbs (100% and 7.7%), and lower limbs (69.2% and 7.7%).

Low percentages of completion were identified in fundamental items to support nursing care, such as: comorbidities (15.3%); results of complementary exams (0%); specification of therapy (23.1%); hormonal regulation (7.7 %); use of immunosuppressive drugs (23.1%); arterial pressure (23.1%); head and chest circumference (0%); weight (23.1%); height (7.7%); surgical incision (15.4%); presence of a stoma (7.7%); and impressions of the nurse interviewer (7.7%).

Sixty-five nursing diagnosis documents were identified and evaluated, related to the 13 cases investigated during the period of five days, in which 501 nursing diagnoses were found, resulting in a mean of eight diagnoses per day for each patient (Table 1).

The diagnoses with the highest percentage of use were: compromised family coping (56.9%); imbalanced nutrition, less than body requirements (43.1%); risk for electrolyte imbalance (43.1%); risk for falls (43.1 %); impaired oral mucous membrane (41.5%); fear (38.46%); risk for impaired skin inte-

grity (38.5%); risk for aspiration (35.4%); hyperthermia (35.4%) and ineffective breathing pattern (30.8%). The high number of diagnoses, probably, was related to the complexity of the cases of the children or adolescents who were hospitalized during the period of data collection, with underlying diseases such as cancer (leukemia, lymphoma, rhabdomyosarcoma, medulloblastoma), sepsis, cystic fibrosis, cardiac, neurologic and hematologic diseases (idiopathic thrombocytopenic purpura, sickle cell anemia).

Table 1 - Description of the frequency of nursing diagnoses in an investigated pediatric unit – Belo Horizonte, 2010

NANDA-I nursing diagnosis	N=65	(%)*
Compromised family coping	37	56,9
Imbalanced nutrition: less than body requirements	28	43,1
Risk for electrolyte imbalance	28	43,1
Risk for falls	28	43,1
Impaired oral mucous membranes	27	41,5
Fear	25	38,5
Risk for impaired skin integrity	25	38,5
Risk for aspiration	23	35,4
Hyperthermia	23	35,4
Ineffective breathing pattern	20	30,8
Impaired walking	19	29,2
Social isolation	19	29,2
Risk for infection	18	27,9
Deficient diversional activity	17	26,1
Risk for imbalanced body temperature	16	24,6
Acute pain	15	23,1
Risk of bleeding	14	21,5
Risk for ineffective renal perfusion	14	21,5
Risk for impaired liver function	13	20,0
Risk for injury	13	20,0
Interrupted family processes	12	18,5
Situational low self-esteem	10	15,4
Ineffective family therapeutic regimen management	10	15,4
Risk for vascular trauma	10	15,4
Others**	37	56,9

\* Percentage calculated on the number of citations of each diagnosis in the 65 documents evaluated.

\*\* Risk for decreased cardiac tissue perfusion, Risk for ineffective cerebral tissue perfusion, Risk for ineffective gastrointestinal tissue perfusion, Constipation, Diarrhea. Source: Research data.

Sixty-five documents were identified and evaluated, of the nursing prescription, which allowed the identification of the main care defined by the nurse (Table 2). We identified the prevalence of the types of nursing care for hospitalized children,

with the most common being: the prescription to verify vital signs (55.4%); to encourage, conduct, assist or supervise body hygiene (52.3%); to observe characteristics of physiological eliminations by drains, wounds, endotracheal tube, tracheostomy and stoma (50.8%); to orient children and their guardians on therapeutic procedures (49.2%); to offer, assist and supervise ingestion and feeding tolerance (47.7%); to evaluate skin conditions (47.7%); to guide the child and his guardian regarding the behaviors for prevention and control of nosocomial infection (44.6%); to encourage, perform and assist oral hygiene (18.2%); observing the site of the venous catheter and surgery for any signs of inflammation (16.25%); to guide and apply moisturizing cream on the whole body (12.35%). These prescriptions relate to care routinely performed by nursing technicians in the pediatric inpatient unit.

The step regarding the results of nursing care did not have a specific document, being performed using documents of general evolution in patient records. This record of evolution was identified in only 30.8% (N = 4) of the charts. Moreover, this record consisted of a physical examination of the patient, not relating their general state and the situation of the identified problems.

## PERCEPTIONS AND OPINIONS OF NURSES AND NURSING TECHNOLOGISTS ABOUT SAE

Participating in the study, 53 (67%) of the total of 79 professionals from the nursing team, 10 nurses and 43 nursing technicians. The study participants were predominantly women (98.11%), with a mean age of 36 years for nurses and 38 years for nursing technicians. The mean working time in the unit was four years for nurses and seven years for nursing technicians. It is noteworthy that 16.27% of the nursing technicians had completed an undergraduate nursing course.

The majority of nurses (60%) knew of the SAE implementation process in the unit through the VDTE, while nursing technicians became aware, principally, through the nursing coordinators of the unit (39.53%). Participation in the initial process of implementation was 90% by nurses and 23.26% by the nursing technicians. Self-assessment of knowledge about the SAE demonstrated that 90% of nurses considered their knowledge good, while among nursing technicians, 39% considered it to be good or very good, 35% as reasonable, and 26% as poor or very poor.

Table 2 - Description of the frequency of nursing prescriptions in an investigated pediatric unit – Belo Horizonte, 2010

Type of prescription of nursing care	N=65	%*
To verify vital signs according to the protocol and to communicate changes immediately	36	55,4
To encourage, conduct, assist, supervise body hygiene in bed / wheelchair / shower / tub	34	52,3
To observe and evaluate characteristics of eliminations: physiological, for drains, wounds, orotracheal tube and tracheostomy, stoma	33	50,8
To guide child and guardian on the therapeutic and preparatory procedures / surgery / transplant	32	49,2
To evaluate skin conditions	31	47,7
To offer / assist / supervise ingestion and feeding tolerance	31	47,7
To guide / supervise patient and guardian on behaviors for the prevention and control of infection	29	44,6
To guide / perform oral hygiene according to the protocol	28	43,1
To observe venous catheter and surgical treatment sites for any signs of inflammation	25	38,5
To guide / apply moisturizing cream all over the body	19	29,2
To evaluate and measure pain according to the protocol	15	23,1
To encourage meals in the cafeteria	15	23,1
To maintain raised bed rails and constant vigilance	13	20,0
To observe and communicate signs of bleeding (site)	11	16,9
To change peripheral venous access and infusion lines according to the protocol	11	16,9
To weigh in the fasted state, according to the protocol	10	15,4
To encourage position change / sitting / walking and to help if needed	10	15,4
To motivate to use new coping strategies	10	15,4
To refer patients to a specialist **	8	12,3
To promote reduction of noise and light in the environment	9	13,8
To maintain bedside flat / elevated 30-45°	6	9,2
Others***	24	36,9

\* Percentage calculated about the number of citations of each care prescribed in the 65 documents evaluated. \*\* Social worker, psychologist, nutritionist, occupational therapist, speech therapist, physiotherapist, dentist. \*\*\*Administer diet by tube, to guide fasting, to place and maintain pyramidal mattress, to guide and communicate signs of hypoglycemia and hyperglycemia, to orient hospital discharge, to apply cold, to perform dressings by nurses, to maintain care of indwelling urinary catheter. Source: Research data.

A relevant finding was that 30% of nurses and 23% of the nursing technicians considered that the implementation of the SAE did not alter the care and 20% of nurses and 26% of nursing technicians reported that it bureaucratized nursing care. On the other hand, 50% of nurses and 51% of the technicians, evaluated that the SAE benefited or greatly benefited the care. The level of adherence in the systematization of care was considered reasonable for 50% of nurses and 33% of nursing technicians and good by 40% of nurses and 21% of nursing technicians. It is noteworthy that 40% of the technicians reported that their adherence might be considered as poor or very poor.

When questioned about the factors that hindered and facilitated the implementation of the systematization of care, professionals of both categories mentioned as factors hindering the work overload related to the insufficient number of nursing professionals (30% of nurses and 23.3% of the technicians), work overload related to the deviations and the uncertainty of the function of the nurse on the unit (20% of nurses and 18.6% of the technicians), and little time for care (20% of nurses and 18.6% of the technical). The nursing technicians (14%) also noted as a hindering factor the bureaucracy for the implementation of the SAE (Table 3).

The professionals of the nursing staff mentioned as facilitating factors the training of the nursing staff about the SAE (20% of nurses and 14% of technicians), and participatory management (20% of nurses and 11.6% of the technicians). In addition to these factors, institutional documents were considered facilitators for SAE by the nurses (20%), and by the nursing technicians, the regular meetings with staff (11.6%) (Table 4).

In relation to assessment of the institutional documents for SAE, the majority of nurses considered reasonable the printed history of nursing (N = 6, 60%) and printed nursing diagnoses, good or very good (N = 5, 50%). The printed nursing prescription, used by nurses and nursing technicians, was evaluated by both, being considered good or very good by 60% (N = 6) of nurses and approximately 45% (N = 19) of the technicians.

Table 4 - Description of the perceptions of the nursing team about the factors that facilitated SAE in the investigated pediatric unit – Belo Horizonte, 2010

Factors that facilitated SAE	Nurse N (%)	Technician N (%)	Total N (%)
No response	1(10)	18(41,9)	19(35,8)
Training for implementation of SAE	2(20)	6(14)	8(15)
Participatory management	2(20)	5(11,6)	7(13,3)
Permanent meetings with the staff	1(10)	5(11,6)	6(11,3)
Ensuring continuity of information of nursing care	1(10)	4(9,3)	5(9,4)
Evaluation of results	1(10)	3(7)	4(7,6)
Institutional documents for SAE	2(20)	2(4,6)	4(7,6)
Total	10(100)	43(100)	53(100)

Source: Research data.

With respect to the frequency of diagnoses and prescriptions that are reviewed, 30% of nurses responded that they did so daily, 20% performed this activity two or three times a week, 10% reported that they performed this once a week, and 10%, once a month. Furthermore, 30% of nurses reported that they performed this activity only when they had time, not defining the frequency. The nursing technicians, for the most part, reported that they read the prescriptions almost daily (N = 15, 37.2%), performed the prescribed care (N = 26, 60.4%), and checked the care provided in the nursing prescription (N = 19, 39.5%). However, approximately 20% of the technicians reported that they never read the prescriptions and did not perform the care according to the prescription of the nurse, and 40% never checked the care provided in the nursing prescription.

In Table 5, the definitions reported by the nurses and nursing technicians about SAE are presented. Results showed a conceptual diversity that encompassed both aspects related to activities of the systematization of nursing care, as well as to the impact expected by the implementation of SAE.

Table 3 - Description of the perceptions of the nursing team about factors that hindered SAE in the investigated pediatric unit – Belo Horizonte, 2010

Fatores dificultadores da SAE	Nurse N (%)	Technician N (%)	Total N (%)
Work overload related to the insufficient number of nursing professionals	3(30)	10(23,3)	13(24,5)
Work overload related to deviations in the role of the nurse	2(20)	8(18,6)	10(18,9)
Little time for care as proposed by the SAE	2(20)	8(18,6)	10(18,9)
Implementation of SAE in a bureaucratic form	1(10)	6(14)	7(13,3)
Non-execution of the nursing prescription by the staff	1(10)	2(4,6)	3(5,6)
Lack of awareness of the team about the importance of SAE	1(10)	2(4,6)	3(5,6)
Institutional documents for SAE	0	1(2,3)	1(1,9)
No response	0	6(14)	6(11,3)
Total	10(100)	43(100)	53(100)

Source: Research Data..

Table 5 - Definition of SAE for nurses and nursing technicians

Nursing Technicians	Nurses
Prescription of nursing care by the nurses are to be performed by technicians	Unique process of the nurse, that values your work
Bureaucratization of assistance already naturally performed by technicians	Organization, standardization, stimulation and registration of nursing care
Organization, systematization and standardization of care that benefits the patient	Nursing care with planning, management and evaluation of care
Methodology of nursing work based on theory and classifications such as NANDA-I, NIC and NOC	Actions systematized and interrelated, performed in steps, aimed at improving care to the human being
Enables a holistic, humane, comprehensive and individual approach to the patient	Prescription of nursing care according to the needs of patients

Source: Research data.

It was observed that the nursing technicians presented a concept linked to the role of each professional in the SAE, predominantly understanding that the technician should restrict herself to performing the treatment prescribed by the nurses and check them in the nursing prescription form (53.5%). In addition, 18.6% of these professionals were not yet clear about their responsibilities for SAE. Some technicians (14%), however, stressed that they should participate in every step of this process. Nurses defined the SAE as a unique process of this professional category that organized and standardized nursing care by means of systematized and interrelated actions (Table 6).

Table 6 - Description of the perceptions of nursing technicians about their role in SAE in the investigated pediatric unit – Belo Horizonte, 2010

Perceptions of the technicians about their role in SAE	N (%)
To perform and check the nursing care prescribed by the nurse	23 (53, 5)
To participate in all steps of the SAE	6 (14)
To relate directly to the patient and his family and inform about changes in the context of the child	4 (9,3)
To guarantee quality of care and expand their knowledge	1 (2,3)
To provide assistance, guiding the patient / family and guarantee continuity of care	1 (2,3)
No response/Do not know	8 (18,6)
Total	43 (100)

Source: Research data.

## DISCUSSION

The nursing process is performed in distinct steps, which must be interrelated to enable adequate planning of care.<sup>5,7</sup> In the unit where the study was conducted, the NP was developed in four stages: history, diagnosis, prescription and nursing

evolution. It was observed that the printed history of nursing was not completed comprehensively and adequately, which could compromise the quality of the nursing process. This is because the appropriate implementation of subsequent steps of the NP depends on the assessment of the health status of the individual performed in the nursing history.<sup>7</sup>

It was evident that the items with the highest percentage of completion in the nursing history form referred to the information available in medical records or data obtained through inspection of the child or adolescent. In turn, the lowest percentages of completion were identified in items that required the conducting of an interview or a complete physical examination. It is believed that the completion of these items is compromised because to obtain the information requires a longer time. In fact, nurses cited lack of time as one of the main factors that hindered implementation of the SAE. This factor has frequently been identified in the literature as a barrier to the realization of SAE.<sup>7</sup>

Given this, it is necessary to consider, in the process of incorporation of new activities, such as the implementation of SAE, the reality of work in the nursing service, in a form that defines a viable proposal. Considering the reality of the pediatric unit, a new model of nursing history document was proposed, with the objective of guaranteeing that each step in the nursing history was performed in less time, but with greater quality of information. For this the document was structured in a form that directed what needed to be analyzed for each item, presenting options to be marked.

The analysis of data obtained in the nursing diagnosis documents demonstrated a multiplicity of diagnoses for the same patient, that could be related to the complexity of the situation of health-illness in the children and adolescents hospitalized in this pediatric unit. For its part, the evaluation of the documents of nursing prescriptions evidenced that the majority of prescribed cares corresponded to the routines already performed by the technical nurses with all the patients, such as verifying vital signs, providing nutritional support and providing hygiene care.

The lack of specificity of the diagnoses and prescriptions can compromise the effectiveness of SAE, so it is important to educate nurses about the importance of defining the peculiarities of the situation of each child or adolescent so that the care is in line with their needs. Studies show that the SAE, applied mechanically and repetitively, limited to the recommendation of routine care, does not respect the individuality of the patient, and it is necessary to stimulate clinical reasoning of the nurses so that they can consider the peculiarities of patients and act efficiently.<sup>4,7</sup> The nursing diagnoses and prescriptions, when adequately defined, can contribute to the improvement of care protocols and definition of themes for training of the nursing staff.

It was observed that the evolution of nursing was performed infrequently and did not meet the assumptions of the theory of

Wanda Horta for this stage of nursing.<sup>3</sup> The evolutionary step is essential to know about the patient's condition and his recuperation. The nursing prescription should be based on it, so that care is intended to solve the problems identified.<sup>7</sup> Given this, a nursing evolution document was also proposed, in order to improve the performance of this phase of the NP. This document was also structured in a way to direct what should be analyzed in each item, with options presented that could be marked.

According to the results, the nurses were considered to have participated and been more involved in the implementation of the systematization of care, and possessed more knowledge about SAE than the nursing technicians. These results may be related both with how the SAE was implemented in the unit of study, involving more nurses, as with the approach of the systematization of care in the training of middle and upper levels in nursing.

The necessity to raise awareness among nurses and nursing technicians about the importance of SAE, and the inclusion of these professionals in the process of implementation is emphasized.<sup>10</sup> Furthermore, it appears that the systematization of care needs to be further addressed in the courses of medium level nursing personnel. Currently, the SAE is present in the curricula of the undergraduate courses in nursing, but little or no information is offered in technical nursing courses. Therefore, it is essential to establish training programs for professionals in service to compensate for gaps in the training, because the lack of understanding of the nursing technicians as to the purpose of the SAE, and their competencies in the process of systematization of care hinders their participation and adherence to the activities of the SAE.<sup>7,11</sup>

A diversity of concepts attributed to the systematization of care for nurses and nursing technicians were identified. These data reaffirm the results of other studies on the systematization of care, in which, although no professional gave a concept totally adequate to that proposed in the literature about the SAE, all recognized it as a process developed by nursing so that they can apply their knowledge in patient care.<sup>5,11</sup> However, it is important to consider that it is not sufficient that the professionals recognize the importance of SAE and the nursing process to nursing work; it is necessary that the team knows its steps and how each should be implemented in daily practice.<sup>5</sup>

The concept presented by nursing technicians recurs in other studies that indicate a fragmentation of care, in which, in general, the nurse conceives and prescribes the care that the nursing technician is to perform, without participating in the planning. These studies highlight the need for nurses to include nursing technicians in performing the SAE, according to their possibilities and respecting the legal requirements, considering that they are part of the team treating the patient.<sup>11</sup> Therefore, the implementation of the SAE must be guided by more ega-

litarian relationships, and a more participatory planning in the nursing process.<sup>5,7</sup>

The results of this study showed that the majority of nurses did not execute all of the steps of the SAE daily and that the majority of nursing technicians did not ground their care in the nursing prescription. This suggests that the team may not be prepared or does not see the professional nurse as responsible for the management of nursing care, to be habituated to routines and in compliance with the medical prescription.<sup>4,11</sup> In addition, the nursing prescription is often not valued by the nurses themselves, by the nursing staff, by physicians and by the management of the institution.<sup>4</sup>

The principal factors that hindered the operationalization of the systematization of care in the perception of professionals in the nursing staff who participated in the study were related to work overload and the deviations and the indefinite function of the nurse. In fact, problems for the implementation of the SAE, given the overload of work, are recurrent in systematic studies of care.<sup>4-5,10,11</sup> In order to have adequate and individualized nursing care, it is necessary that the implementation of the SAE is adjusted to the reality of the institution, such as number of employees, hours of weekly service, type and intensity of care demanded by patients hospitalized in the unit.<sup>5</sup>

The factors that facilitated the deployment of SAE identified by professionals of the nursing team were training and team meetings, in addition to the documents used for SAE. The professional preparation for developing SAE is fundamental, and should be part of the educational program in service of capacity building within the institution, and clarification of doubts about the nursing process and the theoretical model that underpins the phases of SAE.<sup>4,7,10</sup>

## FINAL CONSIDERATIONS

The systematization of nursing care is important for nursing care excellence. The study showed that the process of implementation of the SAE in the pediatric unit may encounter barriers, such as the work overload of nurses, lack of knowledge of the nursing technicians about the SAE, and minimal involvement of professionals in the staff in this process. The inadequacy and failure to complete the institutional documents related to SAE and lack of coordination between the phases of the nursing process were also factors that hindered the implementation of the SAE in this unit.

Results of the study demonstrated that, for the effective implementation of the SAE, it is necessary to perform capacitation processes on the unit about the SAE, the sensitization of professionals as to its importance and periodic evaluation of its implementation, in order to always tailor the process needed for it to become viable in the reality of the service. It would be

also opportune that for the adequacy of the documents, digitalization of SAE should occur in the unit, which would allow major advances with regard to decreased application time and higher quality of the records.

It was evidenced that the participation of the nursing technicians in the process of systematization of care needs to be more valued through the greater inclusion of them in the performance of the steps of SAE. Furthermore, the adequacy of the curricula of technical courses in order to contemplate the systematization of care is fundamental so that they have comprehension of the purpose of SAE and their competencies in the process.

We conclude that the process of implementation of SAE must occur in a context of participatory management, considering organizational aspects, such as the number of employees and the intensity of care demanded by patients in the unit. Institutional changes and professionals depend on long term actions, accompanied by constant processes of evaluation, to identify and overcome the barriers that impede the incorporation of SAE into health services.

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