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CLINICAL CASE REPORT ARTICLE

NURSING CARE SYSTEMATIZATION BY NANDA_NIC_NOC STRATEGY IN PRACTICE

SISTEMATIZAÇÃO DA ASSISTÊNCIA DE ENFERMAGEM PELA ESTRATÉGIA NANDA_NIC_NOC NA PRÁTICA

SISTEMATIZACIÓN DE LA ASISTENCIA DE ENFERMERÍA POR LA ESTRATEGIA NANDA_NIC_NOC EN LA PRÁCTICA

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ABSTRACT

Objective: to characterize the implementation of the nursing care systematization through NANDA_NIC_NOC strategy to a person with surgical dehiscence. ***Method***: clinical and prospective study, applying the NANDA-NIC-NOC strategy on an outpatient evaluated in four stages, held at the Health Institute of a private university with rooms for nursing practices and a wound center. ***Results***: the diagnoses were identified: Impaired skin integrity and pattern of disturbed sleep. We used the NOC to assess what level of indicators was committed, then the NIC for interventions and the reassessments for the NOC. ***Conclusion***: NANDA_NIC_NOC strategy allows nurses to measure the quality and the effect of their interventions in care and develop a care plan based on results. ***Descriptors***: Nursing Care; Nursing Process; Patient-Centered Care.

RESUMO

Objetivo: caracterizar a implementação da sistematização da assistência de enfermagem por meio da estratégia NANDA_NIC_NOC a uma pessoa com deiscência cirúrgica. ***Método:*** estudo clínico, prospectivo, aplicando a estratégia NANDA-NIC-NOC em nível ambulatorial avaliado em quatro momentos, realizado no Instituto de Saúde de uma faculdade particular que possui salas de consultórios de enfermagem e um centro de feridas. ***Resultados:*** os diagnósticos identificados foram: integridade da pele prejudicada e padrão de sono prejudicado. Utilizou-se a NOC para avaliar qual nível dos indicadores estava comprometido, posteriormente a NIC para as intervenções e nas reavaliações para a NOC. ***Conclusão:*** a estratégia NANDA_NIC_NOC possibilita ao enfermeiro mensurar a qualidade e o efeito de suas intervenções na assistência e elaborar um plano de cuidados baseado em resultados. ***Descritores:*** Cuidados de Enfermagem; Processos de Enfermagem; Assistência Centrada no Paciente.

RESUMEN

Objetivo: caracterizar la implementación de la sistematización de la asistencia de enfermería por medio de la estrategia NANDA_NIC_NOC a una persona con dehiscencia quirúrgica. ***Método***: estudio clínico, prospectivo, aplicando la estrategia NANDA-NIC-NOC en nivel ambulatoria evaluado en cuatro momentos, realizado en el Instituto de Salud de una facultad particular que posee salas de consultorios de enfermería y un centro de heridas. ***Resultados***: los diagnósticos identificados fueron: integridad de la piel perjudicada ye padrón de sueño perjudicado. Se utilizó la NOC para evaluar cuál nivel de los indicadores estaba comprometido, posteriormente a NIC para las intervenciones y en las revaluaciones para NOC. ***Conclusión***: la estrategia NANDA_NIC_NOC posibilita al enfermero medir la calidad y el efecto de sus intervenciones en la asistencia y elaborar un plano de cuidados basado en resultados. ***Descriptors***: Cuidados de Enfermería; Procesos de Enfermería; Asistencia Centrada en el Paciente.

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INTRODUCTION

The Systematization of Nursing Assistance (SAE) consists of a methodology to organize and systematize care based on scientific knowledge and promote greater safety and quality for the assistance.[1]

In Brazil, it began with the studies of Dr. Wanda Horta[2] and implementation involves five phases: Data collection or research (made by history and physical examination); nursing diagnosis; care planning; implementation of assistance; and evaluation of results.[3]

Studies developed by nurses in recent years show different difficulties in its implementation. Among them, there are: lack of knowledge by the nurse about the care methodology and theoretical models; deficiency in the thematic approach during the undergraduate course; great demand for bureaucratic and administrative services, and the lack of personnel and material resources for care.[4]

The difficulty of classification handling can be understood as a result of lack of knowledge of this tool, which has a direct impact on the implementation of theoretical and scientific knowledge to the care practice. The conscious use of SAE in the care process can contribute to the uniformity of terms and concepts helping to Nurses professionals in the clinical planning.[5]

The taxonomies NANDA-I classification (North American Nursing Diagnosis Association), NIC (Nursing Interventions Classification) and NOC (Nursing Outcomes Classification) is an enabling strategy implementation of SAE as a complement if used together. The result of their employment, in practice, should take place as follows: NANDA-I - NOC (initial result, conducted before interventions) - NIC - NOC (results after the interventions).[6,7]

The nursing diagnosis is defined by NANDA-I as a clinical trial of individual responses, family or community health problems/real or potential vital processes. The diagnosis of Nursing is the basis for selection of nursing interventions to achieve the results for which the nurse is responsible.[8]

For NIC, a nursing intervention is any treatment based on the judgment and clinical knowledge, which is performed by a nurse to improve the results of patient/client. It is an autonomous action taken as a scientific base and customer benefit, related to a nursing diagnosis to achieve the best possible results.[6]

The NOCis considered complementary to taxonomies NANDA-I and NIC and may also be used in other classifications. Its main role is describing the results achieved by patients through nursing interventions being considered first standardized and comprehensive classification. It is a multidisciplinary tool despite oriented approach to nursing actions to assist in evaluating the effectiveness of interventions.[6]

In 2002, the Federal Council of Nursing (COFEN) established the mandatory implementation of the Systematization of Nursing Assistance (SAE) in all health institutions in Brazil, through Resolution 272/2002. In 2009, COFEN recast and extends the mandatory SAE and implementation of the nursing process for all environments, public or private having professional nursing care.[3]

The nursing theories include that process and serve to support the SAE for nurses be based on priority care for assistance. In general, they follow a model that is based according to the concepts, assumptions, and propositions of each theory.[9]

In this study, we chose to Wanda de Aguiar Horta´s theory, which was based on the theory of human motivation, Maslow, and João Mohana. Maslow classified the basic human needs into five levels: physiological needs, safety, love, esteem, and self-actualization; João Mohana classified them in three major dimensions: psychobiological, psychosocial and psychospiritual.[10]

In practical training, it was perceived difficulties of academics to unite theory with practice in the SAE. Thus, to help nursing students and nurses in clinical practice and familiarize them with the information about the patient record, it was traced to characterize the implementation of systematization of nursing care through NANDA_NIC_NOC strategy to a person dehiscence points in a suprapubic region monitored on an outpatient basis.

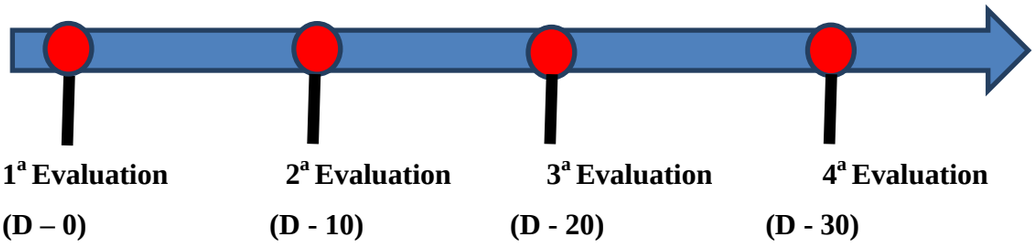
METHODOLOGY

The prospective clinical study, using the NANDA-NIC-NOC strategy on an outpatient basis. The structuring of the nursing process was based on Wanda de Aguiar Horta. For this study, the NANDA_NIC_NOC bibliographies were used and equally necessary (the three books form separately). The collection of nursing records was obtained along with physical examination for nursing consultation to continue to structure planning with diagnoses, interventions and expected results. In the end, they compared the expected results with the results.

The NOC is used in the planning and evaluation stage and has several indicators that are measured based on a Likert scale from 0 to 5 points. The fifth point reflects the most desired patient´s condition about care. The use of NOC helps to check improvement, deterioration or stagnation of measurements that can vary depending on the patient´s condition in a given period.[11]

In this study, we do not insert the numbering for the NOC, but rather the name of the measurement of each result, which is also defined in the classification, for example, the results are placed: none, limited, moderate, substantial, long, between others, not to be confused with the indicators evaluated.

The patient, in this case, was evaluated in 10 outpatients in 10 days to analyze the evolution of structured planning. The patient was followed by the outpatient team twice in the week following the interventions after the completion of individual planning. Evaluations were in a total of four as shown in the figure below.



The symbol **D** corresponds to the scheduled days to evaluate the planning. Thus, following 0-D: day 0; 10-D: day 10; D-20: Day 20 and D-30: day 30.

Inclusion criteria were: adult female patient, the diagnosis has impaired skin integrity, be lucid and oriented in time and space to perform the programmed nursing interventions.

Exclusion criteria were an important cognitive deficit; not attend the scheduled reviews and consultations.

The research took place at the Institute of Health in a private college that has rooms of nursing practices and a center wound. The Institute as a whole has 34 offices, multidisciplinary laboratories of Physical Education, Nursing, Physical Therapy, Speech Therapy, Nutrition, and Psychology.

As for the ethical aspects of research, the research project was submitted to the Ethics Committee of Jorge Amado University Center for evaluation of research obtaining approval of the favorable institution opinion under the number: 113/2015.

RESULTS

The patient was admitted to the Health Institute referenced by a Salvador State Hospital to perform bandage dehiscence in the secondary suprapubic region to subtotal hysterectomy due to uterine atony due to miscarriage. Still in Hospital, he required mechanical ventilation for 15 days in the intensive care unit.

Upon arriving at the Health Institute, the patient evolved as follows: J.A.M. 29 years old, married, brown, pregnant 1, delivery 0, abortion 1. She is quality control assistant in industry, born in Salvador, complete high school, evangelical, and nonsmoker. She was calm, lucid, focused and verbalizing, meeting collaboratively to requests, recent and remote memory intact, reported progressive improvement of nutrition and adaptation to change of routine negates bad feelings and/or negative adjustments to the recent loss.

Her main complaint was: weight loss, loss of appetite and difficulty sleeping all night, consistently, due to disruptions in sleep. Reports that continues with memories of the previous hospitalization for administration of medications during the night. In use of vitamin B1.

On examination, she presented the intact scalp without bulging without skin infections or infestations, black, dull hair, preserved visual acuity, complete eyelid closure, the absence of eyelid edema, isochoric pupils with positive pupillary reaction bilaterally Anicteric sclerotic and mucous normochromic. Hearing is preserved (test performed Weber and Rinne), pinna with the presence of earwax. Paranasal sinuses, without the presence of secretions and deviated septum, an oral cavity with good hygiene, moisturized and normochromic mucosa. Cervical region without the presence of visible and palpable nodes.

Symmetrical upper limbs with a capillary refill, turgor and elasticity maintained. Thorax with good expansiveness, symmetrical,

universally audible breath sounds, no adventitious sounds, rhythmic cardiac auscultation, without a murmur in 2 times, symmetrical breasts. The abdomen was flat, with air-fluid noise, painless on palpation. Showing wound and dry suprapubic region. Dressing with the following characteristics: the presence of yellowish exudate, odorless, small drainage perilesional entire area. Lesion size: 5.5 cm by 2.5 cm width and 2 cm depth. Genitalia full, normal bladder and bowel elimination. Symmetrical lower limbs, with turgor and maintained elasticity, this capillary refill, palpation of the tibial and dorsal pedis pulse bilaterally present. Anthropometric data: height 1.62m, weight 47.0 kg, chest circumference 81 cm, waist circumference 72 cm, right arm circumference 21 cm, BMI 17.93. Vital Signs PA 113x80 mm Hg, FR 18 inc/min, T 36.4°C, HGT: 100 mg/dL at breakfast. As she suffered a recent psychological trauma of an unwanted pregnancy, she was referred to psychological services and even with the improved appetite, she was referred to the nutrition service due to low BMI.

After surveying the history through the anamnesis and physical examination, there were some major diagnoses at that first time and those working to NANDA_NIC_NOC strategy. Figures 1 and 2 demonstrate how is the systematization of the process after the case mentioned above.

Case: J.A.M

Standard disturbed sleep characterized by a change in the normal sleep pattern and related to discontinuation.		
NOC Inicial D-0	NIC	NOC
a) Sleep quality – MTC *b) Sleep routine – MTC* *c) Sleeping the whole night – MTC* d) *Interrupted sleep - S*	✓ To determine the effects of the patient's medications on the sleep pattern; sleep; ✓ Monitor/record the pattern of the patient's sleep and the number of hours of sleep of the patient; ✓ Monitor the standard of patient sleep and observe psychological conditions; ✓ Encourage the patient to establish a routine for bedtime to facilitate the transition from wakefulness to sleep; ✓ To help eliminate stressful situations before bedtime; ✓ Advice the patient to avoid food and drinks at bedtime that interfere with sleep; ✓ Start/implement comfort measures such as massages, positioning, and affective touch.	D10 a) MC b) MC c) MC d) M D20 a) LC b) LC c) LC d) L D30 a) LC b) LC c) LC d) L

Figure 1. Structuring the nursing care plan based on the NANDA-NIC-NOC strategy for the diagnosis: impaired sleep pattern and sleep evaluation result. Salvador - BA, 2015.
Note: MTC = very committed; MC = moderately impaired; M = moderate, S = substantial; LC = slightly compromised; L = Limited; D-0 = first evaluation; D-10 = second evaluation; D-20 = third evaluation; D-30 = fourth evaluation.

Impaired skin integrity characterized by disruption of the skin surface and related to mechanical factors.		
(NOC) Start D-0	NIC	(NOC)
a) Scar formation (M) *b) Reduced size of the wound (M)* c) *Serosanguineous drainage:(M)*	✓ Monitoring the characteristics of the lesion, including drainage, size, color and odor; ✓ Measure the wound bed, as appropriate; ✓ Clean with no toxic substance, or saline, as appropriate; ✓ Apply the proper ointment to the skin / injury, as appropriate; ✓ Examine the injury to each dressing; ✓ Encourage fluid intake as appropriate.	D10 a) M b) L c) L D20 a) S b) L c) L D30 a) E b) N c) N

Figure 2. Structuring the nursing care plan based on the NANDA-NIC-NOC strategy for the diagnosis: impaired skin integrity, evaluating the result of wound healing: second intention – BA, 2015.

Note: M= moderate, S = substantial; L = Limited; E = extended; N = no DE-0 = baseline; D-10 = second evaluation; D-20 = third evaluation; D-30 = fourth assessment.

The patient remained on treatment at the Institute for 31 days, from May 5, 2015, to June 5, 2015, when he was discharged due to the closure of all borders with epithelial tissue.

This is a case of apparently easy deployment, but it serves to structure and clarifies the NANDA_NIC_NOC strategy.

DISCUSSION

In the first evaluation (D-0), the wound showed granulation tissue completely covering the wound bed, regular edges. It presence yellowish exudate, odorless, small drainage perilesional entire area. The patient reported no pain during a dressing change but had certain apathy as a result of very committed sleep.

The first step of NANDA_NIC_NOC strategy is to identify the problems in the clinical case and thus determine which areas of NANDA classification are committed. For the description of the case, the affected areas were: area 4 of activity and rest and area 11 of the safety and protection, which are respectively related to the Class 1 (sleep/rest) and Class 2 (injury).[12]

After identifying the areas and classes, the following diagnoses stood out: STANDARD DISTURBED SLEEP characterized by change in the normal sleep pattern and related disruption (due to trauma of hospitalization) and INTEGRITY OF IMPAIRED SKIN characterized by disruption of the surface and skin related to mechanical factors (surgical postpartum infection dehiscence points).[12]

It is important to raise what is the real situation of the case, and NOC can facilitate in this process through its actual indicators for diagnosis. Some academics and nurses, ignoring the strategy, end up confusing the process, seeking to intervene before knowing the real situation presented by the patient. It is necessary to learn how is the drain, for example, and then intervene and logically, therefore, arises how impaired or improved the patient is for the indicators at the moment.

Thus, NANDAI_NOC connection is made to the choice of the suggested results and among the diagnoses mentioned relevant to clinical case were: SLEEP and WOUND HEALING: SECOND INTENTION.[11]

The result of sleep in NOC has the definition of “periodic natural suspension of consciousness when the body recovers.” And it presents general degrees in 5 levels. To sleep, it ranges from severely impaired level to not committed to the indicators “quality of sleep”, “sleep routine” and “act of sleeping through the night, consistently” and similar from severe to “interrupted sleep.”[11]

It has 23 indicators, but 4 of them were used in the measurement of sleep the patient as shown in Table 1.

Since the classification “wound healing: second intent” displays the definition of “achievement of regeneration of cells and tissues in open wound” and within the NOC, it has 18 indicators which three were used for the measurement according to Table 2. The level of these indicators goes from none to the words for “scarring” and “reduced wound size” as well as from extensive to none for “serosanguineous drain”.[11]

After connecting NANDAI _NOC, it is the connection with the NIC to the search for appropriate interventions.[13,14] Interventions for the first evaluation are contained in Table 1 and Table 2 and have been strengthened over the subsequent evaluations.

For this process to be effective, the collection of nursing history is essential. Thus, anamnesis, physical examination, and possible tests should be listed and discussed throughout the implementation of the care plan.[15]

In the initial evaluation D-0, the product for primary coverage was gauze 100% sterile cotton, containing PHMB (poly hexamethylene biguanide 0.2%).

The poly hexamethylene biguanide (PHMB) 0.2% with 100% cotton impregnated gauze is a very effective antibiotic in the treatment of injuries due to the wide spectrum. The PHMB solution has been studied for decades as an active ingredient in disinfectant formulations and control of pathogenic microorganisms such as Escherichia coli, Staphylococcus aureus, and Pseudomonas aeruginosin. It has broad antimicrobial range preventing infections in surgical wounds, acute and/or chronic, and any susceptible access intra-corporeal infection.[16,17]

For the secondary coverage, we used common and sterile gauze. There were also the guidelines for the preservation of dressing integrity avoiding water and carry out exchange of secondary coverage in the event of increased exudate. In the second assessment (D 10), the lesions showed granulation tissue around the bed, regular edges and dried, measuring 4 cm x 2 cm wide and 1 cm deep. Exudate brownish, odorless and drainage continued with a small amount. We realized a satisfactory evolution of the injury and the use of primary coverage continued with impregnated gauze P.H.M.B due to the presence of exudate even if small.

When asked about sleep, she said still having trouble sleeping but had improved indicators attributed in the NOC. The guidelines have been strengthened to maintain adequate food, especially at night, and keep the environment conducive to sleep.

In the third evaluation on the D-20 showed the intact lesion edges, the presence of epithelialization tissue covering approximately 80% of the area light pink color and showed no more exudate. At this point, with the evolution of the injury, it began to use the AGE oil that is dermo protector and may contain one or two essential fatty acids (linoleic acid and linolenic acid) mixed with other substances, such as vitamin A, E, copaiba oil, melaleuca, among others.[18]

Furthermore, this oil has the function of revitalizing skin, moisturizing increasing the immune response, promoting the inflammatory process and then bringing the epithelialization and healing of the skin.[18]

The daily exchange was recommended to give greater autonomy to the patient and improve the healing process. About sleep, the patient reported improvement of it and reported satisfaction with treatment.

In the fourth and final evaluation (D - 30), there was the total closure of borders with scarred epithelial tissue, which enabled the rise of the Institute of Health. The guidelines were strengthened, and the patient's questions were answered regarding the return of daily activities.

During the treatment, we can see a progressive improvement of the injury. It was noticed contraction of the wound edges and hence decrease the size of the wound, gradual formation of epithelial tissue at each evaluation, occurring complete healing of the lesion for 31 days of treatment.

The success of the treatment was due to the resoluteness of used covers and patient adherence to instructions received both the injury and for sleep.

CONCLUSION

The NANDA_NIC_NOC strategy needs to be done, rethought and changed, if necessary, in all evaluations are performed. It also allows the nurse to measure the quality of their interventions and the effect they have on the patient.

In carrying out the strategy through the picture, structuring the entire care plan, it is understood in an easier and didactic way to unite the three at the same time. At the same time, it facilitates the understanding of how most of the phases of the nursing process interacts with each other.

The limitation of the study was to address the diagnoses present only in the first stage proposed by Wanda de Aguiar Horta physiological need but fulfilled the objective of this study.

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