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## RESEARCH

### Assistência de enfermagem à idosa com lesão medular: estudo de caso

Nursing care of an elderly woman with spinal cord injury: a case study

Asistencia de enfermería a una anciana con traumatismo de la medula espinal: estudio de caso

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#### ABSTRACT

**Objective:** to propose the implementation of the nursing process in the care of an elderly woman from a public health unit in natal/rn. **Method:** case study that used three instruments for the collection of dependency and selfcare data for the construction of the care plan. **Results:** four nursing diagnoses were identified based on nanda-i and the selfcare deficit theory: impaired physical mobility, impaired sleep pattern, home care impaired, and selfcare deficit for dressing and selfcare. corresponding interventions were identified thereby formulating a nursing care plan. **Conclusion:** the use of instruments for the evaluation of dependency and selfcare while conducting the nursing process with elderly people that have spinal cord injury in the home is proposed as a contribution for nursing practice with this population. **Descritores:** Nursing process, Aged, Spinal cord injuries.

#### RESUMO

**Objetivo:** traçar uma proposta de sistematização da assistência de enfermagem para uma idosa com lesão medular, usuária de uma unidade de saúde de natal/rn. **Método:** estudo de caso utilizando três instrumentos para coleta de informações relacionadas ao grau de dependência e às condições de autocuidado da paciente sob estudo para elaboração do planejamento da assistência. **Resultados:** quatro diagnósticos de enfermagem foram elaborados com base na nanda e teoria do déficit de autocuidado: mobilidade física prejudicada, padrão de sono prejudicado, manutenção do lar prejudicada e déficit de autocuidado para vestir-se e arrumar-se. quatro intervenções correspondentes foram traçadas, formulando um plano assistencial. **Conclusão:** propõe-se o uso dos instrumentos que avaliam a dependência e o autocuidado das pessoas para a condução da sistematização da assistência ao cuidar de idosos como lesão medular na residência como contribuição para a prática de enfermagem com essa população. **Descritores:** Processos de enfermagem, Idoso, Traumatismos da medula espinhal.

#### RESUMEN

**Objetivo:** elaborar una propuesta del proceso de enfermería para una anciana con traumatismo de la espina dorsal que usaba la unidad de salud. **Método:** estudio de caso en que se usaron tres instrumentos para la colecta de informaciones relacionadas a el grado de dependencia y de las condiciones del autocuidado de la paciente para la elaboración del plano de cuidados. **Resultados:** cuatro diagnósticos de enfermería fueron elaborados a base de la nanda y de la teoría del déficit del autocuidado: movilidad física perjudicada, padrón del sueño perjudicado, manutención de la casa perjudicada y déficit del autocuidado para se vestir y se arreglar. cuatro intervenciones correspondientes fueron construidas formulando un plano asistencial. **Conclusión:** se propone el uso de los instrumentos que evalúan la dependencia y el autocuidado de las personas para la conducción del sistema de la asistencia al cuidar de ancianos con traumatismo de la medula espinal en la residencia. **Descriptor:** Procesos de enfermería, Anciano, Traumatismos de la médula espinal.

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## INTRODUCTION

In the world there is the increase in life expectancy, relating to improving the quality of life of the people, to the advances of science, the improvement and greater ease of access to health services.<sup>1</sup> However, certain health conditions affect the functional capacity of older people and their way of life, as the chronic non-communicable diseases.

Is vast literature about the care provided to the elderly totally dependent for those diseases and their complications, but the dependence due to spinal cord injury (LM) in this population is poorly recorded. Some studies<sup>2-5</sup> identify cases of elderly people above 60 years with LM. However, specific nursing care with a focus on the elderly patient with this diagnosis are not well understood in the literature. Such knowledge becomes important because the special needs that the consequences of an LM impose to the individual who suffers vulnerability due to its age.

With advances in health technologies increases the prospect of survival of the patient with LM. Soon, people with 60 years of age with mild or severe disabilities live, although the injury has occurred in young age.<sup>4</sup> Why the need of the individual with LM have to readjust to perform basic activities of daily living (ABVD).<sup>3, 6</sup>

To assist individuals in the process of adjustment, systematization of nursing care (SAE) becomes crucial, as it is the method itself of occupation aimed at promotion, prevention, recovery and rehabilitation of health.<sup>7</sup>

Thus, the question is: How do we characterize the SAE in the care of elderly people with LM? From this perspective the objective is to outline a proposed SAE house for an elderly LM enabling intervene in functional disability, and encourage the development of self-care.

In this study will be used as theoretical Self-care deficit theory, since the model of demand checking subsidizes care and guides and therapeutic, preventive actions and to promote self-care.<sup>8</sup>

This research is part of a larger survey conducted in 2012, which aimed to validate the contents of an instrument for consultation of home visit nursing for people with spinal cord injury developed based on the theory of Self-care deficit.<sup>4</sup> Focus on elderly participant with LM is justified by the uniqueness of the case, because it is a person with a condition generally considered uncommon in this age groups well as the need to contribute to the knowledge of nursing practice in the context of health for the elderly.

## METHOD

We used the case study outlining how proposal for understanding the nature of a current phenomenon little-known or single and to which they have access.<sup>9</sup> It is considered that an elderly woman with LM, a health unit user of Natal/RN, Brazil, constitutes the case of interest.

The information about the case were obtained by means of three instruments: socio-demographic questionnaire, Barthel index and evaluation scale of Self-care Agency (ASA).

Identified nursing diagnoses (from) a priority through the taxonomy system of North American Nursing Diagnosis Association International (NANDA-I, 2012). After listing the initiated analyses for select nursing interventions, drawn on the basis of the Nursing Interventions Classification (NIC),<sup>10</sup> and the expected results on the Nursing Outcomes Classification (NOC).<sup>11</sup>

Finally, we considered the Self-care deficit theory that proposes three nursing systems: I. Fully Compensatory System: the nurse performs the self-care, compensating for the inability of the patient, which must be supported and protected; II. Partly Compensatório System: the nurse supports the patient, performing some actions, but there is bilateral action; III. Support System - Education: the nurse supports self-care, however is the patient himself who performs the actions.<sup>8</sup>

The base of this research study was approved by the Research Ethics Committee of the Universidade Federal do Rio Grande do Norte, under number of CAAE: 0243.0.051.000-11. The elder was enlightened as to participation in work and signed the Instrument of Consent Form (ICF).

## RESULTS AND DISCUSSION

### Case report

In July 12, 2012 a domiciliary visit to T.J.T, a Lady of 79 years, a resident for 31 years in the city of Natal/RN, after having been identified by the basic health unit professionals as a patient with LM. This visit took place an interview to obtain research data and information relating to demographic and health characteristics.

The Lady described herself of naturalness of Martins /RN, brown, evangelical, with incomplete elementary school (5<sup>th</sup> grade), married, mother of seven children. Reported



living with three more people (husband, son and grandson) and that the monthly household income was R\$1.800,00<sup>\*</sup>. Reported that there are 40 years coexists with the condition of LM, resulting from a fall during pregnancy.

Stated that in his spare time shopping, listen to radio, watch TV, read newspapers, books or magazines, roams the neighborhood, get out to social gatherings or religious, visit relatives and do water aerobics. Reported you can wander independently, however when ascending or descending stairs, it is necessary the help of another person.

Questioned about ABVD claimed to be unable to leave the House driving her own car adapted, clean the House and your bed, go up and down stairs. Being that your child helps make tasks such as cleaning, tidying the House, dress up and give messages when you need it.

### **Dependency and self care deficit**

Information to identify the level of dependence were obtained using the Barthel Index during the interview. The Barthel Index is a questionnaire validated, which assesses functional capacity for the following Activities of Daily Living (ADL's): eating, washing, dressing, grooming, controlling bladder and bowel using bathroom, transferring up, walking, climbing and descending stairs. Each of these activities is given a score of 0, 5, 10 or 15 points. A score of 100 means complete independence; 60-95 mild dependence; 40-55 moderate dependence; 20-35 severe dependence; and <20 total dependence and high risk of death.<sup>6</sup>

Through the Barthel index identified that the lady was dependent on the activity up and down stairs, reaching a global score of 90 points.

To evaluate the ability of self-care of the daily activities was applied to WING Scale. This scale was developed by Isenberg and Evers in the period of 1950 from the self-care deficit theory of Elizabeth Dorothea Orem. Is composed of 24 items that have answers with scores ranging between one and four, in which 1 means never and always 4, regarding the individual's ability to care for themselves.<sup>12</sup>

Through the ASA Scale was identified that the participant certifies that almost always forms practicing to keep up with health is good; is almost never able to do what is necessary to keep the house clean; when they need help may never resort to their friends; can never get enough sleep to feel rested; never inspects the body to see if there is any change; when you need to take new medication never requests information on the side effects of this drug; is never able to take steps to protect yourself and family; and never have time to take care of themselves. At the end, she got 74 points, which indicated a good capacity for self-care.

### **Nursing diagnosis and Prescription**

Based on demographic information, capacity and dependency of self-care, identified the areas affected and drew up the priority Diagnoses according to the classification of NANDA-I, as shown in table 1.

Affected domain	Label	Defining Characteristic (DC)/Related Factor (RF)
Activity/home	Impaired physical mobility	(DC) Limited range of motion; Limited ability to perform fine motor skills (RF) neuromuscular Weakness
Activity/home	Degraded sleep pattern	(CR) Report of restorative sleep; Reports of dissatisfaction with sleep
Activity/home	Impaired home maintenance	(DC) Reports of difficulty to keep your House comfortable; Report to ask for help for the maintenance of the House (RF) Disease
Activity/home	Deficit in the self-care to dress up and make up	(DC) Impaired capacity to put/get/close/get clothes. (RF) Neuromuscular and perceptual losses.

**Table 1** - Identification of the Nursing Diagnoses the elderly with spinal cord injury according to the NANDA-I. Natal/RN, Brazil, 2013.

Then identify if the Nursing Interventions, based respectively according to the NANDA-I<sup>13</sup> and NIC;<sup>10</sup> in addition to the expected results based on NOC<sup>11</sup>, as shown in Table 2.

Label	Nursing interventions (NIC)	Nursing results (NOC)
Impaired physical mobility	<u>Improvement in displacement inside and outside the home:</u> -Determine the current capacity to transfer up/II; -Determine the current capacity to stand up and remain standing/II; -Determine the presence of orthostatic hypotension/I; -Identify opportunities and pick the technique up and down most appropriate stairs/II; -Demonstrate the technique, if appropriate/III; -Provide assistive devices, such as crutches and cane/II; -Provide encouragement as she learns/III.	Level of adequate mobility.
Degraded sleep pattern	<u>Improving sleep:</u> -Provide guidance to monitor sleep patterns/III; -Determine the effects of drugs on sleep patterns/II; -Register the pattern of sleep and the amount of hours slept/III; -Provide guidance to eliminate stressful situations before bedtime/III; -Advise on quantity and best food and fluid intake in the evening time/III; -Limit daytime sleep, providing activities that promote alertness, where appropriate/II.	Patient expresses satisfaction with regards to sleep.
Impaired home maintenance	<u>Assistance for home maintenance:</u> -Identify home activities that require little time, low energy expenditure and that fit the skills/II; -Demonstrate and observe the performance of these activities of the home/III; -Positive reinforcement in the event of attempted or successful execution of the activity/III; -Advise the family about the importance of participation of the elderly in home activities, because it said to feel more capable contributing/III.	Can assist with organization and cleanliness of the home activities and feels so satisfying.
Deficit in the self-care to dress up and make up	<u>Dress and grooming:</u> -Identify the potential to perform these activities (mobility, strength and cognition)/II; -Train her to perform them with greater independence possible/III; -Positive reinforcement in the event of attempted or successful/III; -Advise the family about the importance of respecting the time and preferences of the elderly/III.	Can dress up and dress up with greater independence.

**Table 2** - Planning of nursing care to the elderly with SCI second NANDA-I, NIC and NOC. Natal/RN, Brazil, 2013. I=Totally Compensation System; II=Partially Compensatório System; III=Support-Education System.

### Proposal for implementation of the nursing care

The implementation of nursing care is focused on the improvement of self care and quality of life, with the aim of providing a healthy family atmosphere, clean and comfortable, with the collaboration of the members of the family.

The impaired physical mobility is defined as limitation in the independent and voluntary physical movement of the body or of one or more extremities. In this case, is related to neuromuscular impairment, and characterized by limited capacity reporting to perform motor skills thick as up and down stairs, driving his own car and clean the House and your bed. For this, the expected result is increased level of mobility.<sup>11</sup> For both the activities prescribed by nurse should encompass improved offset within and outside the home.<sup>10</sup>

Before indicate activities to be performed by the elderly, you need to consider your level of vulnerability, being necessary to determine its potential mobility. Then, choose techniques and tools that can help you perform the movements and guide to using them. Always paying attention to the positive reinforcement, because this encouragement is key to the success of the actions.

The impaired sleep pattern is defined as interruptions of sleep quantity and quality, limited by time, stemming from external factors, characterized by verbal reports of the patient does not feel rested.<sup>13</sup> As expected result has sleep. For this the interventions are focused on activities related to the goal enhancing sleep,<sup>10</sup> through implementation of the following activities: guide the patient and significant people about the factors that contribute to sleep disorders; discuss with the patient and family comfort measures, sleep monitoring techniques and changes in lifestyle that can contribute to the quality of sleep.

The DE impaired home maintenance has defined as: failure to maintain, independently, an immediate and safe environment that promotes growth, linked by impaired function at the expense of spinal cord injury suffered, characterized by difficulty in reporting to help sustain their house clean and comfortable.<sup>13</sup> The result to be achieved is family run,<sup>11</sup> through nursing intervention assistance for home maintenance<sup>10</sup>

In this context, it is expected that the prescribing include nursing activities able to include the elderly in carrying out household chores that are compatible with their physical capacity, include it in decisions about the requirements for maintenance of the House; In addition to suggesting structural changes needed to make the home more affordable.

The DE deficit in the self-care for dress-up and fix-if it has the following definition: State in which the individual experiences a impaired ability to perform or complete, for yourself, dress-up activities and/or fix-up, referenced by neuromuscular and perceptual deficit.<sup>13</sup> The result to be achieved through the nursing care is dress up and find themselves with greater independence.<sup>11</sup>

Thus, it is expected that the nurse identify elderly's ability to perform movements needed to get up and get dressed, to then draw a plan that ensures greater independence. It is worth mentioning that while attempting to carry out this activity alone, she will spend more time than if you had help. Therefore, the family must respect and encourage to continue, once run welfare increases and ABVD self-esteem of elderly.<sup>3</sup>

### Nursing assessment

The present study deals with a case of elder observed with LM, from which it was proposed a plan grounded in SAE assistance with data analysis, identification of DE, interventions and expected outcomes. After the interventions implemented, the expected results should be evaluated for whether they were achieved or if there is need to revise the plan of care in order to achieve the goals in its entirety.<sup>14</sup>

## CONCLUSION

The proposed implementation of the nursing process to an elderly woman with LM with focus on self-care and the quality of life, associated with the use of systems for the classification of NANDA-I nursing, NIC and NOC, although not implemented, offered subsidies to highlight the needs of affected patient. The condition age-related vulnerability of the person and their ability to self-care as an individual with LM allowed the identification of impaired physical mobility:, impaired sleep pattern, home maintenance hampered and deficit in the self-care to dress up and make up elaborate assistance plan included the definition of specific interventions.

It is concluded that the use of rating systems made it possible to establish diagnoses, interventions and outcomes of nursing. Although not common language among professionals of basic health units, studies which propose to demonstrate its applicability should be encouraged, in order to contribute with their use in the care of people with LM in residence.

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