ABSTRACT: The present study aimed to investigate nursing problems usually identified in the nursing records of patients admitted to medical units, relating them to the North American Nursing Diagnosis Association-International (NANDA-I) diagnostic classification. It is a quantitative descriptive study. Documental analysis was used for data collection. Data was collected in August 2011, from the records of 134 patients, and 141 nursing problems were detected, and 35 different diagnoses were identified. Most of them concern diagnoses related to psychobiological (117) and psychosocial (24) needs. No diagnoses related to psychospiritual needs were identified. It is concluded that nurses prioritize the physical problems of the patients at the expense of social and spiritual problems.

DESCRIPTORS: Medical practice; Nursing; Nursing diagnosis.

DIAGNÓSTICOS DE ENFERMAGEM DA NANDA-I COM BASE NOS PROBLEMAS SEGUNDO TEORIA DE WANDA HORTA

RESUMO: O objetivo deste estudo foi levantar os problemas de enfermagem, frequentemente identificados nos históricos de enfermagem dos pacientes internados em unidades clínicas, relacionando-os com a classificação diagnóstica North American Nursing Diagnosis Association-International. Trata-se de uma pesquisa descritiva de abordagem quantitativa. Utilizou-se a análise documental para coleta de dados. Os dados foram coletados no mês de agosto de 2011, nos prontuários de 134 pacientes nos quais foram identificados 141 problemas de enfermagem, sendo a partir destes identificados 35 diagnósticos diferentes. Estes se aproximam majoritariamente de diagnósticos relacionados às necessidades psicobiológicas (117) e psicossociais (24). Não foram identificados diagnósticos relacionados às necessidades psicospirituais. Conclui-se que enfermeiros priorizam os problemas físicos dos pacientes sob seus cuidados, muitas vezes em detrimento dos problemas sociais e espirituais.

DESCRITORES: Clínica médica; Enfermagem; Diagnóstico de enfermagem.


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INTRODUCTION

The medical clinic units that are present in most general hospitals are important inpatient environments for the diagnosis and treatment of adults, usually suffering from nonsurgical chronic and acute disorders. They concentrate a wide range of patients with several diseases, some of them highly dependent on nursing care. The increasing prevalence of chronic diseases and longevity of the Brazilian population result in an increased number of hospital admissions of elderly individuals, who are more dependent on care facilities due to the aging process (1).

Therefore, nurses who perform their duties in medical clinic units need more knowledge and the ability to predict systematized care to patients, both to meet the individual needs of their clientele and to develop their professional knowledge (2).

Nursing Care Systematization (NCS) and implementation of the Nursing Process (NP) addresses the demand for organization of nursing services and the planning of care based on scientific aspects, in order to identify the situations of health and illness of the individuals and supporting care actions, contributing to the promotion, prevention, recovery and rehabilitation of health (3).

In the 1970s, Wanda de Aguiar Horta pioneered the introduction of this concept in Brazil, but it was in the second half of the 1990s that the use of NCS in our country gained strength and began to spread, reaching its culmination in the beginning of the new century, indicating the scientific advances in the nursing practice in Brazil. The author developed her studies based on Maslow’s theory of human motivation, which is grounded on basic human needs and uses the designation adopted by João Mohana, that is, psychobiological, psychosocial and psychospiritual needs (2).

In the implementation of Horta’s model, the nurse prepares the nursing record during the first few hours of hospitalization; stresses the nursing problems, which, according to Horta are “situations or conditions resulting from an imbalance in the basic needs of the individual, family and/or community that require professional nursing assistance” (4).

The psychobiological needs concern oxygenation; hydration; elimination; sleep and rest; exercise and physical activities; shelter; body mechanics; motility; sexuality; body care; physical and skin and mucosal integrity; thermal, hormonal, neurological, hydroelectrolytic, immunological regulation; vascular, cell growth; perception of body senses; therapeutics and locomotion; the psychosocial needs concern safety, love, freedom, communication, creativity, learning, gregariousness, recreation, leisure, space, time and space orientation, acceptance, self-fulfillment, self-esteem, participation, self-image and attention and the psychospiritual needs concern religious or theological, ethical aspects and philosophy of life (2).

In 2002, The Conselho Federal de Enfermagem – COFEN (Federal Council of Nursing), through COFEN Resolution no 358/2009, the NCS is made mandatory in all health institutions that have a nursing staff (3).

The implementation of NCS requires a theoretical frame to guide the steps of this process, and the Theory of Basic Human Needs, (BHN) of Wanda Horta is the theory most widely used by the institutions of the country, and the theoretical frame is adapted by the nursing staff to the local circumstances (2).

The Nursing Process (NP) is defined as “the dynamics of systematized and inter-related actions aimed to providing care to human beings” (4). The model has six different stages: history, diagnosis, assistance plan, care plan or prescription, prognosis and evolution of nursing.

In the implementation of Hortas model, the nurse prepares the nursing record during the first few hours of hospitalization; stresses the nursing problems, which, according to Horta are “situations or conditions resulting from an imbalance in the basic needs of the individual, family and/or community that require professional nursing assistance” (4).

Based on the problems identified, the nurse elaborates the care prescription, which is implemented by the nursing team, so that the patient obtains the care needed. In the evolution of nursing, the subsequent step of this process, the nurse assesses the results of nursing care, including, excluding or modifying the interventions, according to the responses of the patient to the care delivered. During this process, updated every 24 hours, the nurse checks to determine whether or not the problems were solved, whether new problems occurred or changed following nursing care (5).

The way in which NCS is performed in the institution where this study took place, with preparation of patient nursing records – definition of patient problems - prescription – implementation of care – evolution in a continuous process, makes it possible to predict individualized care, but does not guarantee compliance with COFEN’s Resolution no 358/2009 (3), which made the implementation of NCS compulsory. The diagnostic stage in the referred institution, in turn, is represented by the...
stage of definition of problems.

The nursing diagnosis (ND) is considered a more complex stage of the nursing process, representing a considerable challenge to the nurse who is required to think critically and have technical and scientific knowledge to interpret the data obtained during physical examination and in patient’s interview. Appropriate formulation of ND guides the planning and implementation of care and makes it possible to carefully analyze and interpret the evolution of the patient in this process (6).

Some diagnostic classifications are available (7). The North American Nursing Diagnosis Association-International (NANDA-I) is one of the best-known classifications in Brazil (8).

Aware of the need to accelerate the process of adoption of the diagnostic stage of the NCS and with the aim to implement this stage in the institution in which our study takes place, we attempted to investigate the nursing problems frequently identified by nurses in the nursing records of patients admitted to medical clinic units, relating them to NANDA-I diagnostic classification.

METHOD

Quantitative cross-sectional descriptive study, which attempted to investigate nursing problems frequently identified by nurses in the nursing records of patients to medical clinic units, relating them to NANDA-I diagnostic classification.

The research field was formed by three medical clinic units of a medium-sized general university hospital located in a capital of a Southern Brazilian state, with 77 beds distributed over the following medical specialties: cardiology, neurology, rheumatology, pneumology, nephrology, gastroenterology, endocrinology, hematology and medical clinic itself. In these units, 24 nurses who perform NCS on a daily basis use the theoretical framework of Basic Human Needs, investigating the nursing records of patients upon their hospital admission. At this moment, they also define the main nursing problems and establish a nursing care plan/prescription. Then, they continually monitor patient’s evolution based on the care delivered and, if necessary, change nursing prescription.

The hospital in which this study was conducted is a federal teaching hospital with 319 beds over the specialties surgery, medical clinic, maternity, pediatrics and neonatology, gynecology and intensive care, and operates entirely under the Brazilian Unified Health System. The decision to investigate the phenomenon in medical clinic units resulted from the insertion of one researcher in one of the three units of the hospital.

Data collection began in the months of August and September 2011, in two weeks, with an interval of 15 days between them, in order to obtain a greater number of records and cases analyzed. All the patients admitted to hospital during the period of data collection were invited to participate in the study, regardless of the reason for admission. Nobody refused to participate in the study. The patients or legal representatives were informed about the purposes and methods of the research and authorized consultation to the records by signing a Free Informed Consent form.

The exclusion criterion was lack of nursing record at the time of the study i.e. patients admitted within the past 24 hours. Also, records analyzed in the first week of data collection where excluded when the patients remained hospitalized in the second week of data collection were excluded. The present study included 134 records of hospitalized patients.

Data collection was performed by reading of the Nursing Record, and all the nursing problems identified by nurses during the interviews and physical examination were compiled at that moment.

For data analysis, the problems identified in the patient’s record were grouped and recorded in a software Excel® spreadsheet, organized in Psychobiological, Psychosocial and Psychospiritual Needs. The groups of problems were compared to the classification of NANDA-I nursing diagnoses and were again organized as nursing diagnoses. The relative and absolute frequencies of the findings analyzed based on Wanda Horta’s theory were described.

The study was approved by the Human Research Ethics Committee (CEPSH) of UFSC, under No 2134/2011, according to all the provisions of Resolution 196/1996 (9) and its complementary laws, in force at the time of the study.

RESULTS

Regarding the characterization of the patients admitted to medical clinic units, 80 (59.7%) were female and 54 (40.3%) were male. Their age ranged from 16 to 98 years, and 44% of the patients were
over 60 years of age.

In the 134 nursing records analyzed, 141 different nursing problems were identified. Of these, 117 (82.98%) concerned the field of psychobiological needs; 24 (17.02%) concerned the field of psychosocial needs. No problems related to psycho-spiritual needs were identified, according to Chart 1.

The psychosocial needs were basically presented in those situations related to patients being separated from their environment, their families and their daily activities by hospital admission, expressed in emotional lability, anxiety, tearfulness, isolation, fear, distress, low-esteem, aggressiveness, depression, sadness and homesickness. No problems related to spiritual needs were identified in this study.

Chart 1 - Problems related to psychobiological/psychosocial needs identified in the nursing records and relationship with nursing diagnoses (NANDA-I). Florianópolis, SC, Brazil, 2012

<table>
<thead>
<tr>
<th>Psychobiological needs (n=117)</th>
<th>N</th>
<th>%</th>
<th>Related diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Regulation</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increased blood pressure levels (vascular)</td>
<td>21</td>
<td>14.9</td>
<td>Risk for low cardiac output; Activity intolerance, Ineffective tissue perfusion, Unstable blood sugar risk.</td>
</tr>
<tr>
<td>Increased glucose levels (hormonal)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Presence of edemas (electrolytic)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Oxygenation</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complaint of dyspnea</td>
<td>16</td>
<td>11.34</td>
<td>Impaired gas exchange, Ineffective breathing pattern, Activity intolerance, Risk of activity intolerance.</td>
</tr>
<tr>
<td>Use of supplemental oxygen through a nasal cannula</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Skin and mucosal integrity</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pressure ulcers</td>
<td>14</td>
<td>9.93</td>
<td>Risk of impaired skin integrity, Impaired skin integrity, Impaired tissue integrity, Risk of infection; Impaired physical mobility, Impaired bed mobility.</td>
</tr>
<tr>
<td>Mobility-related problems</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Therapeutics</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maintenance of vascular access</td>
<td>14</td>
<td>9.93</td>
<td>Risk of infection.</td>
</tr>
<tr>
<td><strong>Perception of sense organs</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pain complaints</td>
<td>13</td>
<td>9.22</td>
<td>Acute pain, Chronic pain.</td>
</tr>
<tr>
<td><strong>Elimination</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dysfunction of sphincters</td>
<td>11</td>
<td>7.8</td>
<td>Constipation, risk of constipation, Dysfunctional gastrointestinal motility, Diarrhea, Fecal incontinence, Functional urinary incontinence, Urinary retention, Impaired urinary elimination, Infection risk.</td>
</tr>
<tr>
<td><strong>Environment</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risk of falling</td>
<td>10</td>
<td>7.1</td>
<td>Risk for falls. Self-care bathing deficit.</td>
</tr>
<tr>
<td>Body care: need for assistance from nursing staff for bathing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Nutrition</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complaint of loss of appetite</td>
<td>10</td>
<td>7.1</td>
<td>Unbalanced nutrition: less than body requirements.</td>
</tr>
<tr>
<td><strong>Hydration</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low water intake during hospitalization</td>
<td>5</td>
<td>3.53</td>
<td>Fluid volume deficit, Risk of fluid volume deficit.</td>
</tr>
<tr>
<td><strong>Sleep and repair</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difficulty falling asleep</td>
<td>3</td>
<td>2.13</td>
<td>Impaired comfort, Insomnia, Disturbed sleep pattern.</td>
</tr>
<tr>
<td><strong>Psychosocial needs</strong> (n=24)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Safety</td>
<td>24</td>
<td>17.02</td>
<td>Fear; Ineffective coping, Anxiety.</td>
</tr>
<tr>
<td><strong>Psycho-spiritual needs</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>141</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>
DISCUSSION

Most patients admitted to the medical clinical units were below 60 years of age, contrasting with the practical experience where most people admitted to these units are older. The high number of young patients affected by immunological problems during the research period deserves consideration. Further investigations to assess seasonality aspects and possible changes in the profile of these patients are needed before any definite conclusions can be drawn.

Although Horta’s theoretical model recognizes the biopsychospiritual needs of human beings, the predominant problems reported by the nurses in their assessments concern psychobiological needs, indicating that the training of nursing professionals is focused on the knowledge of biomedicine and on the patient’s body care. The participants stressed the importance of investing in holistic care models that consider the multiple dimensions of the human being(10-11).

The predominant nursing problems identified in the group of patients in the study were those related to regulation, oxygenation and skin and mucosal integrity. Regarding regulation needs, increased blood pressure and glucose levels and the presence of swelling in tissues of the body, consistent with the development of chronic diseases deserve mention(12).

Other important observations are related to oxygenation problems in patients admitted to the hospital in which the present study was conducted, since it is a reference in the treatment of patients with lung diseases. Also, prevention/care of pressure sores very common in bedridden patients and/or patients with motor, sensory or cognitive impairments may increase the chance of complications. Therefore, the nursing staff should be encouraged to provide care to their patients on a personal basis, from their admission to hospital, regardless of their medical units(13).

A similar study identified these nursing diagnoses (ND) in 196 records of elderly patients, and risk of impaired skin integrity was the most expressive diagnosis, which affected 46.4% of the study population followed by impaired skin integrity and impaired tissue integrity(14).

Administration of invasive drugs and maintenance of vascular access are among the nursing problems reported by the nurses, due to risk of infection caused by discontinuance. Corroborating the data of this study, risk of infection was prevalent (58.3%) in a research aimed to identify the nursing diagnoses in a unit of surgical medical care(15). The diagnosis of risk of infection can also be related to the diagnosis of skin mucosal integrity(14).

Pain in several body segments was also reported, represented by the Domain Comfort of NANDA-I Taxonomy II, which corroborates the findings of a previous study that reported pain as the second diagnosis in the order of prevalence in a medical clinic unit(16). Pain is an important vital sign, which requires professional attention, since its prevention and control is directly related to the quality of care(17).

Other major problems were also described by the nurses, though less frequently, such as those related to eliminations (bowel and bladder); nutritional disorders related to water and food intake and gastric disorders such as nausea, vomiting, inability of patients to feed themselves independently, need for gastric tubes and dietary restrictions. Regarding this aspect, it should be stressed that hospitalization promotes changes in feeding habits, and this may become a nursing problem, which deserves special attention of the nurses who provide direct patient care.

Insomnia associated to the hospital environment was also detected in this study. Other investigations indicated the same problem(18). It should be noted that changes in sleeping patterns in hospitalized patients can be related to physiopathological factors, to the treatment and to personal or environmental situations(19).

Another concern of this study was related to safety and the risk for falls associated to the degree of dependence of patients. This condition has drawn the attention of nurses to the need for surveillance and the adoption of strategies for preventing these situations, with recording and monitoring of cases with impact on patient safety(20-21).

Regarding Psychosocial and Psycho-spiritual Needs, although these are scarcely addressed by nurses, there is concern with the fear and anxiety caused by sickness and hospitalization. The authors stress the difficulty of nurses in dealing with biopsychosocial and spiritual aspects of the patients, who are often focused on the provision of technical care to patients to the detriment of holistic care(10).

It should also be mentioned that most patients admitted to general hospitals and medical clinic units are affected by health problems that are
closely related to psychobiological human needs\(^{(5)}\). Hospital admissions usually result from a clinical problem to be investigated and/or treated, which requires a variety of nursing interventions related to the physical body of the patient. However, studies on BHN\(^{(6,11,12,14,16,21)}\) found that hospital nursing is focused primarily on the sphere of needs. Like the findings of the present research, these studies demonstrate that the theories about the interrelationship between psychobiological, psychosocial and psycho-spiritual needs has not been clearly apprehended by nurses. The theory of BHN assumes that failure to meet one of these basic needs interferes with the other needs of the multidimensional human being\(^{(5)}\).

In the planning of nursing interventions, patient care should be more comprehensive, since these individuals have feelings, desires, fears, religious beliefs, etc. The conception of a whole human being guides the professionals and institutions that integrated the SUS.

**CONCLUSIONS**

The investigation of the predominant nursing problems in patients admitted to medical clinics and their relationship with NANDA-I diagnostic rating allowed identifying a series of diagnoses in hospitalized patients.

Most diagnoses identified in this study concerned biological aspects, indicating that nurses are usually more concerned with the physical status of their patients, to the detriment of social and spiritual problems. Without disregarding the concern with the physical status of patients, we believe it is necessary to move toward a conception of the patient as a multidimensional being, with biopsychosocial and spiritual needs, in order to improve the quality of care.

By relating the nursing problems reported by nurses in the records of the patients to NANDA-I defining characteristics and factors, 35 nursing diagnoses were identified. For the researchers, the diagnoses are consistent with the reality experienced in the medical clinic units, explaining the type of care usually provided to patients admitted to these units.

However, further studies are needed to reinforce, expand or modify the current findings. Also, we recommend that other studies include data related to patient evolution, since the status of patients change throughout hospitalization, generating new nursing diagnoses and requiring new and diversified care measures. Isso porque, ao longo da internação, os pacientes acabam modificando sua condição de saúde/doença e/ou dependência de cuidados de enfermagem, apresentando novos diagnósticos de enfermagem e exigindo novos e diversificados cuidados.

Based on the findings of this study, nurses may rethink the process of care delivery and nursing care systematization, in order to confer a more scientific aspect to their activity, through the use of classification of nursing diagnoses. The inclusion of the diagnostic stage to NCS depends, among other factors, on studies that encourage nurses to give a new direction to their daily practice in health institutions.

**REFERENCES**


