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# Nursing diagnoses for institutionalized elderly people based on Henderson's theory\*

Diagnósticos de enfermagem para idosos institucionalizados fundamentados na teoria de Henderson

Diagnósticos de enfermería para ancianos institucionalizados fundados en la teoría de Henderson

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#### **ABSTRACT**

Objective: To develop nursing diagnostic statements for institutionalized elderly people. Method: Descriptive study conducted with elderly subjects of a Long Stay Institution through the application of forms for the support of anamnesis and physical examination and a search of medical records. The diagnostic statements were developed based on the International Classification for Nursing Practice and categorized according to the Henderson's theoretical model. Results: Participation of 203 elderly people. A total of 153 nursing diagnoses were developed and distributed as follows: 115 (75.1%) in the Biological/Physiological Component, 14 (9.1%) in the Psychological Component, 21 (13.7%) in the Social Component, and three (1.9%) in the Spiritual/Moral Component. Conclusion: The diagnostic statements portray situations of vulnerability to the health of institutionalized elderly that are influenced by biological, psychological, social and cultural factors and require a systematized, individualized and resolutive care for this public.

#### **DESCRIPTORS**

Aged; Nursing Diagnosis; Homes for the Aged; Nursing Theory; Geriatric Nursing.

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## **INTRODUCTION**

The science and art nursing cares for healthy or sick human beings in the different contexts of practice, especially in Long Stay Institutions for the Elderly (LSIE). These institutions are collective residences that serve the elderly who resort to them because of family and/or income shortages or due to the need for long-term care<sup>(1)</sup>. However, these characteristics have been changing, since the elderly also seek to maintain their independence, that is, manage their daily lives<sup>(2)</sup>.

The services provided by LSIE must be sensitive to the elderly's needs in order to reduce the risks related to institutionalization<sup>(3)</sup>, as well provide care for those requiring assistance in Activities of Daily Living (ADL), maintain the elderly's functional capacity and perform palliative care. In addition, these institutions intend to offer a space that reproduces family life<sup>(2)</sup>.

Regarding nursing, "the practice of systematizing actions in these institutions is still incipient and little used, which can lead to care without continuity and achievement of goals, and may compromise the elderly person's health"<sup>(4)</sup>.

Thus, the need for a nursing care built on the theoretical-philosophical knowledge of the profession with use of nursing terminologies and theories for an individualized care in line with institutionalized elderly people's needs and by considering that these people "not only receive care in these places, but reside and coexist with a different reality from that experienced until the moment of institutionalization" (5).

As nursing theories are chosen from the context and demands of individuals, Virginia Henderson's Theory of Human Needs was adopted, in which the patient is considered as an individual who needs help to achieve independence and autonomy. This theory proposes 14 fundamental needs divided into four components of care, namely: Biological/physiological, Psychological, Social and Spiritual/moral. They represent the areas in which health problems can occur and must therefore, be addressed in order that subjects maintain their physical and mental integrity<sup>(6)</sup>.

"For the structuring and evolution of care in the nursing field, the use of nursing classification systems has become fundamental, especially the International Classification for Nursing Practice (ICNP®), which promotes the scientific and technological development of the profession. This classification favors professional recognition resulting from the record and quality of care in practice, especially when directed to specific areas of nursing care represented by terminological subsets of ICNP® consisting of sets of statements of nursing diagnosis, results and interventions"<sup>(7)</sup>.

In view of the above, the aim of this study was to develop nursing diagnostic statements for institutionalized elderly subjects based on Virginia Henderson's theory of Human Needs and the ICNP®.

# **METHOD**

# Type of study

This is a descriptive, cross-sectional study.

## **S**CENARIO

The study was conducted in an LSIE located in the state of Ceará/Brazil. This is a civil, private, non-profit association that assists underserved elderly people with all degrees of dependency.

The study population comprised 215 elderly people living in the LSIE. The inclusion criteria were to be 60 years of age or older and reside in the aforementioned LSIE for at least 30 days. Deaths (n=5), hospitalized elderly (n=5), and those who were traveling (n=2) during the data collection period were excluded from the study. Thus, the total sample included 203 participants.

## **DATA COLLECTION**

The study was conducted between April and September 2016 through application of a systematized instrument and physical examination of the elderly. The instrument was developed from professional experience and a literature review. It included variables of socioeconomic and clinical characterization and the physical examination, in light of the basic human needs, according to Henderson. The medical records were also consulted for complementing the information. This step was performed by the main author of this article.

## **ANALYSIS AND PROCESSING OF DATA**

The collection of the elderly's data enabled to identify the foci of nursing practice, which subsidized the diagnostic reasoning process proposed by Gordon<sup>(8)</sup> and the authors' clinical judgment for the development of diagnostic statements.

The statements were developed based on guidelines of the ICNP° version 2015, in accordance with ISO 18.104<sup>(9)</sup>, and included a term of the Focus axis and a term of the Judgment axis, plus additional terms from other axes as required. In the development of diagnostic statements, were used terms from the literature of the area and from clinical practice when terms for the situation identified were not found in the ICNP° terminology.

The spelling of the developed diagnoses was adjusted based on statements in the ICNP® version 2015, and distributed in the subcategories of Biological/physiological, Psychological, Social and Spiritual/moral Components according to Henderson's conceptual model.

## **ETHICAL ASPECTS**

The development of the study was in accordance with Resolution 466/12 of the National Health Council, and it was approved by the Research Ethics Committee of the Universidade Estadual do Ceará under opinion number 1.476.411/2016.

# **RESULTS**

A total of 209 elderly people participated in the study. There was a prevalence of the female sex (57.1%), mean age of 77.6 (±9) years, single (49.8%), low educational level (49.3%), retired (94.6%) and Catholics (84.7%).

The development of 153 nursing diagnostic statements was performed with data obtained from the anamnesis and physical examination. Information was categorized according to the components of nursing care and distributed

as follows: 115 (75.1%) in the Biological/Physiological Component, 14 (9.1%) in the Psychological Component, 21 (13.7%) in the Social Component, and three (1.9%) in the Spiritual/Moral Component, as shown in Chart 1.

Chart 1 – Distribution of nursing diagnostic statements for institutionalized elderly people according to basic human needs – Fortaleza, CE, Brazil, 2016.

Basic human needs	Nursing diagnosis
Biological/Physiological Component	
Breathe	Tobacco abuse (11%); Bradycardia (1%); Impaired cardiac function (13%); Impaired respiratory system function (8%); Dyspnea (9%); Anginal pain (0.5%); Activity intolerance (0.5%); Wet cough (14%); Dry cough (8%); Increased respiratory rate (tachypnea) (3%); Respiratory infection (2%); Aspiration risk (0.5%); Risk for impaired cardiac function (2%); Tachycardia (1%)
Eat and drink	Alcohol abuse (4%); Low appetite (13%); Low weight (4%); Dysphagia (2%); Absent dentition (18%); Impaired dentition (13%); Dehydration (3%); Malnutrition (17%); Decompensated Diabetes (4%); Hyperglycemia (1%); Excess food intake (3%); Impaired food intake (6%); Impaired fluid intake (10%); Nausea (3%); Obesity (13%); Heartburn (2%); Risk of malnutrition (4%); Risk of choking (5%); Risk of hypoglycemia (2%); Overweight (2%)
Eliminate	Ascites (0.5%); Constipation (15%); Chronic constipation (3%); Diarrhea (6%); Pain during urination (5%); Abdominal pain (4%); Edema (17%); Overflow incontinence of urine (or Polaciuria) (1%); Impaired kidney function (7%); Hematuria (0.5%); Bowel incontinence (8%); Urinary incontinence (19%); Urge incontinence of urine (5%); Functional incontinence of urine (2%); Urinary tract infection (4%); Nocturia (14%); Urinary retention (0.5%); Risk for constipation (6%); Risk for electrolyte imbalance (2%); Risk for water imbalance (2%)
Sleep and rest	Insomnia (19%); Impaired sleep (25%); Drowsiness (4%)
Move and maintain a desirable posture	Impaired ability to move (8%); Impaired musculoskeletal system function (16%); Discomfort (5%); Joint pain (8%); Arthritis pain (3%); Musculoskeletal pain (10%); Neurogenic pain (1%); Bone pain (3%); Impaired walking (23%); Impaired wheelchair mobility (6%); Impaired mobility in bed (3%); Sensory deficit (6%); Risk for fall (78%); Risk for trauma (2%); Postural dizziness (15%)
Dress and undress	Impaired ability to dress (6%)
Maintain body temperature within normal range	Fever (2%)
Keep the body clean and well groomed and protect the integument	Crust (or Seborrheic dermatitis) (4%); Self-care deficits (21%); Erythema (2%); Excoriation (3%); Hematoma (6%); Impaired ability to perform hygiene (11%); Impaired ability to perform oral hygiene (10%); Hyperbilirubinemia (2%); Infection (9%); Fungal infection (13%); Head lice infestation (7%); Infestation by <i>Sarcoptes scabiei</i> (8%); Impaired skin integrity (3%); Injury (14%); Dry skin (20%); Impaired tissue perfusion (18%); Itching (14%); Risk for infection (8%); Risk for Impaired Skin Integrity (2%); Risk for injury (1%); Risk for bleeding (1%); Risk for pressure ulcer (9%); Bleeding (3%); Ulcer (2%); Pressure ulcer (5%); Chronic venous ulcer (1%)
Avoid dangers	Agitation (4%); Distress (1%); Hallucination (8%); Anxiety (10%); Delirium (1%); Acute pain (9%); Chronic pain (6%); Weakness (1%); Hypertension (9%); Hypotension (2%); Walking (2%); Risk for self-mutilation (0.5%); Risk for seizure (1%); Impaired vision (43%); Risk for suicide (4%)
Psychological Component	
Communicate	Impaired hearing (20%); Aggressive behavior (8%); Aphasia (9%); Impaired sexual behavior (2%); Compulsive behavior (2%); Impaired communication (5%); Distorted thinking (14%)
Learn	Non adherence to therapeutic regime (5%); Self-medication (1%); Impaired cognition (30%); Lack of knowledge of medication regime (2%); Disorientation (36%); Impaired memory (26%); Non adherence to medication regime (8%)
Social Component	
Work in a way that there is sense of accomplishment	Low self esteem (2%); Depressed mood (17%); Labile mood (10%); Preoccupation (2%); Sadness (13%); Family abandonment (16%); Ineffective family communication (3%); Social isolation (13%); Denial of the institutionalization process (1%); Denial of disease (0.5%); Relationship problem (4%); Impaired institutionalization process (5%); Impaired family process (20%); Conflicting relationship (8%); Risk for loneliness (2%); Impaired socialization (5%); Loneliness (5%); Victim of family violence (2%)
Play	Lack of leisure activity (11%); Lack of play activity (7%); Mental idleness (9%)
Spiritual/Moral Component	
Worship according to one's faith	Fear (3%); Conflicting religious belief (0.5%); Impaired Belief (1%)

## **DISCUSSION**

The results of the present study regarding sample characterization were equivalent to those of other studies on the profile of institutionalized elderly people with predominance of the female sex, age between 70 and 80 years, single and low educational level<sup>(10-11)</sup>.

Most nursing diagnoses identified in this study were classified in the Biological/Physiological Component, which

was already foreseen, because in this component are gathered "the greatest number of needs considered as basic and indispensable for maintaining the health and life of the human being that influence the satisfaction of other needs"(6). The developed diagnoses derived mainly from care demands resulting from anatomical and physiological alterations of aging, as well as from senility processes that favor dependency and illness<sup>(4)</sup>.

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Anatomo-physiological changes are the most noticeable as the person ages, "accentuating their manifestations with advancing age" (6). "At the biological level, aging is associated with the accumulation of a great diversity of damages, both molecular and cellular. Over time, these damages lead to a gradual loss of physiological reserves thereby increasing the risk of contracting various diseases and contributing to the overall decline in the individual's intrinsic capacity" (12).

"In addition, advanced age often involves significant changes beyond biological losses. These changes include changes in roles and social positions, and the need to deal with losses in close relationships" (12), revealed by institutionalization.

The need to *Move and maintain a desirable posture* grouped together a large numbers of Nursing Diagnosis (ND). Among other problems, were identified musculoskeletal pain, joint stiffness, unstable gait, and history of falls in the studied elderly, which demonstrates demands of nursing care for their control and reduction. A study conducted in Alagoas/Brazil with institutionalized elderly people identified that in 62.7% of participants, the need for locomotion was affected and they depended on nursing care for the encouragement and supervision of walking, on the use of artifacts for ambulation (orthoses, prostheses, crutches, walking sticks, wheelchairs, walkers) and on effective assistance for locomotion due to restriction to bed, in addition to guidance and supervision of the companion/caregiver<sup>(13)</sup>.

During physiological aging, changes in body structure and composition may significantly compromise the physical mobility of the elderly person<sup>(14)</sup>. These changes may be potentiated by institutionalization, which is known to damage the elderly's health by the absence or limitation of physical and recreational activities that stimulate and arouse their interest. Thus, is favored a sedentary lifestyle that can be aggravated by increasing age and lead to the functional decline and dependency<sup>(15)</sup>.

The aforementioned aspects demonstrate the evident need to implement programs for maintaining the functionality of institutionalized elderly people with actions for disease and disorder prevention, functional health promotion and rehabilitation of locomotion limitations, thereby providing a better quality of life for this population.

The statements of diagnosis categorized in the need to Keep the body clean and well groomed and protect the integument had high frequencies in the study population. Skin problems are common in this age group because of the decreased barrier function and the ability of sensory receptors to perceive traumatic and aggressive stimuli<sup>(16)</sup>. This can be aggravated by institutionalization and increase the risk for damage to cutaneous integrity with a significant impact on the elderly person's quality of life<sup>(17)</sup>. These changes should be taken into account during the health evaluation of institutionalized elderly people and support a more effective development of nursing diagnoses for the planning and implementation of interventions that contribute to the improvement of care<sup>(18)</sup>.

Study participants presented care demands for the need to *Eat and Drink*, and were identified problems in the population, such as absence of teeth, difficulty in chewing and

swallowing, reduced appetite, among others. Similar results were found in a study developed with 205 institutionalized elderly individuals from the Murcia/Spain region, who presented several nutrition-related demands<sup>(19)</sup>.

The institutionalization imposes changes in the elderly's daily routine, including food, and these lead to changes in eating habits and greater vulnerability to illness due to the lower food acceptance and consequent commitment to nutritional status<sup>(20)</sup>. This demonstrates the need for including nutrition aspects in the overall health assessment of the elderly performed by nurses working in LSIE. This enables the identification of needs, establishment of specific nursing diagnoses and planning of effective interventions by taking into account their functional capacity in order to prevent and treat inadequate nutritional status and ensure high-quality care for this population<sup>(21)</sup>.

"In order to achieve these goals, an expanded knowledge must be used for an efficient clinical judgment in the formulation of several nursing diagnoses that can subsidize the choice of the most appropriate interventions" (21), thus stimulating the maximum potential of independence for the satisfaction of the elderly person's needs.

We also identified demands for psychosocial and spiritual needs, which supported the development of nursing diagnostic statements related to Psychological, Social and Spiritual/Moral Components, according to Henderson's theoretical framework. "The very impact of institutionalization contributes to the prevalence of feelings of anxiety, anguish and distress" among the elderly, and may result in depression and social isolation. The inclusion of these dimensions in the evaluation and planning of care is important, as is the support to the development of mechanisms in order that these individuals remain active and socially integrated.

The results of this study collaborate to the improvement of nursing care for institutionalized elderly people, strengthen the understanding on the importance of using a standardized language and theoretical nursing references in the clinical practice, and allow the provision of individualized care guided by the real demands of the population.

The main limitation of the study was related to the lack of definition or clarity in the statement of some terms constant in the ICNP® 2015, which made the development of nursing diagnostic statements difficult.

## **CONCLUSION**

The nursing diagnostic statements developed portray situations of vulnerability to the health of institutionalized elderly that are influenced by biological, psychological, social and cultural factors. These factors may be exacerbated by the quality of care and their environment in the institutional setting. They also demonstrate focus of attention for the care of institutionalized elderly, and help to guide nursing care actions in a systematized, individualized and resolutive way.

The nursing diagnostic statements developed do not end the domain of this health priority. Further studies must be conducted to structure a proposal of a terminological subset in order to highlight the elements of nursing practice and, consequently, show the competencies and activities of nurses' practice in the care for institutionalized elderly.

#### **RESUMO**

Objetivo: Elaborar enunciados de diagnósticos de enfermagem para idosos institucionalizados. Método: Estudo descritivo, realizado com idosos de uma Instituição de Longa Permanência, mediante aplicação de formulários que subsidiaram a anamnese e o exame físico, além de busca nos prontuários. Os enunciados de diagnósticos de enfermagem foram elaborados com base na Classificação Internacional para a Prática de Enfermagem e categorizados segundo modelo teórico de Henderson. Resultados: Participaram 203 idosos. Foram elaborados 153 diagnósticos de enfermagem, distribuídos da seguinte maneira: 115 (75,1%) no Componente Biológico/Fisiológico, 14 (9,1%) no Componente Psicológico, 21 (13,7%) no Componente Social e três (1,9%) no Componente Espiritual/Moral. Conclusão: Os enunciados de diagnósticos de enfermagem elaborados retratam situações de vulnerabilidade à saúde dos idosos institucionalizados, influenciadas por fatores biológicos, psicológicos, sociais e culturais, exigindo um cuidado sistematizado, individualizado e resolutivo para esse público.

## **DESCRITORES**

Idoso; Diagnóstico de Enfermagem; Instituição de Longa Permanência para Idosos; Teoria de Enfermagem; Enfermagem Geriátrica.

#### **RESUMEN**

Objetivo: Plantear enunciados de diagnósticos de enfermería para ancianos institucionalizados. Método: Estudio descriptivo, llevado a cabo con ancianos de un Institución de Larga Estancia, mediante aplicación de formularios que subsidiaron la anamnesis y el examen físico, además de la búsqueda en las fichas. Los enunciados de diagnósticos enfermeros fueron elaborados con base en la Clasificación Internacional para la Práctica de Enfermería y categorizados según el modelo teórico de Henderson. Resultados: Participaron 203 personas mayores. Fueron elaborados 153 diagnósticos enfermeros, distribuidos de la siguiente manera: 115 (75,1%) en el Componente Biológico/Fisiológico, 14 (9,1%) en el Componente Psicológico, 21 (13,7%) en el Componente Social y tres (1,9%) en el Componente Espiritual/Moral. Conclusión: Los enunciados de diagnósticos de enfermería planteados retratan situaciones de vulnerabilidad a la salud de los ancianos institucionalizados, influenciadas por factores biológicos, psicológicos, sociales y culturales, por lo que requieren cuidado sistematizado, individualizado y resolutivo para dicho público.

#### **DESCRIPTORES**

Anciano; Diagnóstico de Enfermería; Hogares para Ancianos; Teoría de Enfermería; Enfermería Geriátrica

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