Abstract

Objective: To develop a subset of nursing diagnoses for the elderly followed in primary health care based on the bank of terms for clinical nursing practice with the elderly, in the International Classification for Nursing Practice (ICNP®) version 2013, and on the Model of Nursing Care. Method: Descriptive study developed in sequential steps of construction and validation of the bank of terms, elaboration of the nursing diagnoses based on the guidelines of the International Council of Nurses and the bank of terms, and categorization of diagnostics according to the Care Model. Results: The total of 127 nursing diagnoses were elaborated from 359 validated terms, distributed according to the basic human needs. Conclusion: It is expected that these diagnoses will form the basis for the planning of nursing care and use of a unified language for documentation of clinical nursing practice with the elderly in primary care.

Descriptors

Aged; Nursing Diagnosis; Terminology; Classification; Primary Health Care.

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INTRODUCTION

The contemporary phenomenon of population aging has determined a demographic and epidemiological transition that resulted in the increased demand of seniors for services, health equipment and specific policies at all levels of care. The cultural diversity emerging from contextual experiences should be considered within the context of health actions directed at the elderly, by contributing to the creation of situations close to their reality, and subsidizing reflections on the need to reframe practices, values and attitudes\(^{(1)}\). The Primary Health Care (PHC), through the Family Health Strategy (FHS), emerges as a possibility to provide comprehensive health care for the elderly through actions of promotion, maintenance and restoration of health, and prevention of diseases and disorders, taking into account the reality experienced by this population at the family and community level\(^{(2)}\).

The work of nurses in the FHS is essential because these professionals consider the elderly's needs in the global health assessment, including biological, psychosocial, cultural and spiritual aspects, for the provision of comprehensive and more adequate care to this population\(^{(3)}\). The performance of effective nursing care requires the nursing process, a methodological tool that guides professional practice. This process develops in five sequential phases, among which the nursing diagnosis stands out. It is defined as the judgement done by the nurse about a phenomenon of professional practice that provides the basis for selecting interventions to achieve the expected results in nursing\(^{(4)}\).

The nursing process should be supported by a theoretical framework for the implementation of its stages. Among the various theories developed, Virginia Henderson's Care Model emphasizes the use of scientific knowledge to solve problems of professional practice and bases its actions on comprehensive and individualized care. According to her theory, each person is a unique and complex being with fundamental needs common to any human being, and the satisfaction of these needs depends on biological/physiological, psychological, social and spiritual/moral aspects. The needs are not health problems, but areas where these problems may occur, constituting elements that will guide nursing care in order to maintain or restore the autonomy and independence of the subject as quickly as possible\(^{(5)}\).

Considering that nursing care for the elderly should focus on the prevention of diseases and health disorders, and the promotion of autonomy and independence of these subjects, the theoretical framework of Henderson’s Care Model was used in this research to categorize the nursing diagnosis for the elderly followed in PHC.

The use of nursing process steps has favored the establishment of nursing classification systems, among which the International Classification for Nursing Practice (ICNP\(^{®}\)) stands out. It includes terms and concepts of diagnosis, nursing outcomes and interventions. The International Council of Nurses (ICN) has encouraged the development of terminology subsets of the ICNP\(^{®}\) to facilitate the use of this classification for the execution and registration of the nursing process. The subsets are groupings of diagnoses, outcomes and interventions in nursing for a group of clients and/or selected health priority\(^{(6)}\).

Despite the advantages of using the nursing process and classification systems for clinical nursing practice, including the ICNP\(^{®}\), its use is still incipient by FHS nurses. Nursing care for the elderly at this level of attention is often unsystematic and without a theoretical basis justifying the actions\(^{(7)}\).

Authors mention the importance of identifying nursing diagnosis for elderly registered in the FHS to contribute with the implementation of nursing consultations and documentation of nurses’ clinical practice\(^{(8)}\). Thus, the construction of a subset of nursing diagnosis of the ICNP\(^{®}\) for the elderly followed in PHC meets the ICN recommendations. This will also result in a technological instrument to facilitate clinical nursing practice, by supporting systematized actions based on appropriate theoretical references to the context of care, clinical reasoning and using a standardized nursing vocabulary.

The aim of this study was to develop a subset of nursing diagnosis for the elderly followed in the FHS based on the ICNP\(^{®}\) (version 2013) terminology for clinical nursing practice with the elderly, and on the Model of Nursing Care.

METHOD

This is a descriptive study, conducted from 2013 to 2014, and developed in four stages: 1) collection of relevant terms and concepts to clinical nursing practice related to the elderly; 2) validation of terms and construction of the Bank of Terms for Clinical Nursing Practice for the Elderly in PHC; 3) elaboration of nursing diagnoses from the identified terms; and 4) categorization of nursing diagnosis according to the Model of Nursing Care.

The first stage was a survey done in official documents on elderly published in Brazil for the identification of terms considered clinically and culturally relevant for clinical nursing practice in the FHS. Data collection occurred in 2013, and was performed by a single researcher that adopted guidelines to standardize the strategies used\(^{(9)}\). The following references were used: National Policy for the Elderly\(^{(9)}\), Elderly Statute\(^{(10)}\), National Health Policy for the Elderly\(^{(11)}\), Booklet of Basic Care number 19 – Aging and Health of the Elderly\(^{(12)}\), and Practical Guide of the Caregiver\(^{(13)}\).

These documents were submitted to comprehensive reading and subsequent extraction of terms that were broken down into simple terms (nouns, verbs, adverbs and adjectives), generating a list with 880 terms. Then, the terms related to medical procedures, diseases and drugs were excluded, resulting in 616 terms that passed for a normalization and standardization process, with removal of duplicity, graphic corrections and adjustments of gender and number, totaling 373 terms.

The terms were included in a form and presented to a group of five experts, considering the literature recommendations\(^{(14)}\). The inclusion criteria for the selection of experts were the following: nurses with a master’s title (minimum),
working with the nursing process and ICNP®, and focused on the health of the elderly within the scope of assistance, teaching and/or research.

For the identification of nurses who met the inclusion criteria, an active search was conducted in the Lattes Platform of the Conselho Nacional de Desenvolvimento Científico e Tecnológico website. Invitations were sent to 15 nurses, of which only five agreed to participate by returning the submitted form completed, and the signed consent form, composing the final sample.

Participants were asked to mark their agreement or disagreement regarding the use of terms extracted from the document for the construction of nursing diagnosis for elderly followed in PHC. Then, we calculated the Concordance Index (CI) among them for each term using the formula: CI = NC/(NA + ND), where NA = number of agreement and ND = number of disagreement. The terms were considered validated when CI ≥ 0.80.

Of the 373 terms submitted to content validation process by specialist nurses, 359 terms were considered validated. These were imported from Microsoft Office Excel spreadsheets to the Microsoft Office Access program for constructing the table of terms. This information was also subjected to the cross-mapping process, which is the comparison of information between the validated terms in the study and the terms of the Seven Axes Model of the ICNP® version 2013. The result of this cross-mapping were 279 constant terms and 80 non-constant terms in this terminology. They were all grouped in alphabetical order to constitute the Bank of Terms for Clinical Nursing Practice for the Elderly in PHC.

The database of terms built in the study and the ICN guidelines were used in the stage of construction of nursing diagnoses. These guidelines recommend the mandatory inclusion of a term of the Focus axis and a term of the Judgment axis, as well as additional terms of other axes, if necessary.

In the categorization stage, according to the Model of Nursing Care (5), diagnosis were classified according to the subcategories of Biological/Physiological, Psychological, Social and Spiritual/Moral Components.

The present study was approved by the Research Ethics Committee of the Universidade Estadual do Ceará, under number 501.721 and CAAE: 18669013.7.0000.5534.

RESULTS

The Bank of Terms for the Clinical Nursing Practice in the Elderly in PHC consisted of 359 terms, of which 279 terms were considered constant and 80 non-constant terms in the ICNP®. These were distributed according to the Seven Axis Model of the ICNP® version 2013, resulting in the following: 58 terms in the Action axis; 16 in the Client axis; 179 in the Focus axis; 14 in the Judgment axis; 36 in the Location axis; 42 in the Means axis; and 13 in the Time axis.

Based on these terms and the ICN guidelines, were elaborated 127 nursing diagnoses that were categorized according to the components of nursing care and distributed as follows: Biological/Physiological Components: 95 diagnoses (74.8%), Psychological Components: 19 diagnoses (15%), Spiritual/Moral Components: seven diagnoses (5.5%), and Social Components: six diagnoses (4.7%). These diagnoses were discussed according to the care components and the fundamental human needs, according to the Model of Nursing Care (5).

DISCUSSION

The ICN considers the human aging and Gerontologic and Geriatric Nursing as health priorities for developing the ICNP® terminology subsets. Thus, the construction of this subset of diagnosis is relevant and important because it will serve as basis for the development of proposals of nursing interventions to structure the ICNP® terminological subset for clinical nursing practice with the elderly followed in PHC, which is a strategy to develop individual, humanized and effective care actions for this population strata.

The statements of nursing diagnosis elaborated were mapped according to the basic human needs and the Model of Nursing Care. The majority (74.8%) was related to Biological/Physiological Components, with emphasis on anatomical and physiological aspects of the elderly, which are: breathing; eating and drinking; elimination; sleeping and resting; moving and maintaining a proper posture; dressing and undressing; maintaining a normal body temperature; keeping oneself clean, groomed and protect the skin; avoiding hazards. These findings are in line with the theoretical model used, in which the Biological/Physiologic Component gathers together the largest number of needs considered as basic and essential for maintaining the health and life of human beings, influencing the satisfaction of other needs (15).

The anatomical and physiological changes in the elderly are the most perceptible, accentuating its manifestations with advancing age. In each person, such changes can gradually reduce the body functions as a result of the aging process of organs and tissues that reaches its operating apex in adulthood. These changes affect the energetic and biomechanical functional capabilities and may result in adaptive difficulties of the elderly. Moreover, they can predispose the elderly to illnesses conditions given their personal vulnerability, leading them to dependence and disabilities, requiring professional knowledge from nurses and the staff in particular, for the performance of care actions (18).

The senescence in the aging process results in changes in the need to breathe, like in the stiffening and reduced expansiveness of the chest. It compromises the efficiency of gas exchange, lung compliance and respiratory muscle strength are decreased, the number of alveoli and the respiratory total surface area also decrease, and there is lower resistance of the bronchioles and expiratory collapse (19).

Within this scenario, nurses are responsible for the prior identification of these changes during the nursing consultation and the establishment of accurate nursing diagnosis that will enable the appropriate choice of interventions to improve the elderly’s respiratory status to the expected limits, preventing the appearance of other diagnosis frequently
observed in this population\textsuperscript{20}. The following nursing diagnoses were elaborated for the need to breathe: Improved breathing, Impaired breathing, Dry cough, Productive cough and Tobacco use.

In the elderly, the need to eat and drink may be affected by various structural and functional changes in organs and tissues that reflect throughout the body and influence their nutritional status, such as: reduction in lean body mass, changes in cytokine and hormone levels, delayed gastric emptying, diminished smell and taste, among others. Nurses should try to correct the identified problems or prevent the changes related to nutrition and hydration through systematic actions, taking into account the functional capacity of the elderly, their socioeconomic context and the burden of diseases\textsuperscript{23}. Given these circumstances, the following nursing diagnosis were elaborated: Adherence to dietary regimen, Improved appetite, Effective ability to prepare food, Impaired ability to prepare food, Impaired swallowing, Impaired dentition, Lack of adherence to dietary regimen, Proper hydration, Insufficient food intake, Impaired fluid intake, Proper body weight, Increased body weight and Decreased body weight.

The independence to satisfy the need to eliminate highlights the differences between individuals and is particularly affected by the aging process. With respect to bladder function, the reduction of nephron number and of blood supply to the kidneys, and structural changes of the detrusor muscle can affect the functioning of the urinary system, resulting in urgent urination, urinary incontinence or urinary retention. With regard to intestinal function, there is a reduction of absorption and intestinal motility, which may cause constipation\textsuperscript{22}. According to the results, were elaborated the following nursing diagnosis: Constipation, Diarrhea, Willingness to improved intestinal elimination, Willingness to improved urinary elimination, Improved intestinal elimination, Improved urinary elimination, Bowel incontinence, Urinary incontinence, Urge urinary incontinence and Urinary retention.

The need to sleep and rest is particularly affected in old age, and the independence to satisfy it varies with each individual. The difficulties in meeting this need result in attention deficit; reduction of response speed; loss of memory, concentration and performance; difficulty maintaining good family and social relationships; increased incidence of pain; tendency to misjudge one’s own health; reduced ability to perform daily tasks; increased use of health services and reduced survival. Among the elderly, these signs can be considered natural changes of the aging process or interpreted as indicative of cognitive impairment or dementia\textsuperscript{20}.

Considering the implications of poor sleep quality for health and the quality of life of seniors, nurses must be able to identify changes or risk factors and plan the care by establishing nursing diagnosis that enable a proper intervention to promote or restore the independence to satisfy this need. Thus, the following nursing diagnoses were elaborated: Fatigue, Improved sleep and Impaired sleep.

During physiological aging, changes such as body mass loss and reduced muscle strength and function, joint stiffness and reduced range of motion, and changes in gait and balance make the elderly more vulnerable to falls, pain and functional disability, consequently affecting the satisfaction of the need to move and maintain a proper posture. Thus, nurses should be able to make quick and accurate diagnosis and implement the most appropriate interventions to maintain and/or restore the elderly’s independence for meeting this need\textsuperscript{24}. Hence, were developed the following nursing diagnoses: Effective transfer capacity, Impaired transfer capacity, Effective ambulation, Impaired ambulation, Intolerance to physical activity and Impaired physical mobility.

The aging process can cause musculoskeletal disorders that impair the elderly’s independence of meeting the need to dress and undress. Also, disorientation and cognitive and sensory deficits may limit their ability to select the appropriate garments for environmental thermal and climatic conditions\textsuperscript{25}. In order to maintain and/or restore the elderly’s independence to meet this need, were elaborated the following nursing diagnoses: Effective ability to dress and undress, Impaired ability to dress and undress, Effective capacity for personal grooming and Impaired capacity for personal grooming.

The need to maintain the proper temperature can be affected in the elderly because of changes in the homeostatic balance, leading to reduced efficacy of thermoregulatory mechanisms\textsuperscript{20}. Given these circumstances, were elaborated the following nursing diagnoses: Fever, Hyperthermia, Hypothermia and Proper body temperature.

The skin of seniors undergoes various and profound changes common to the natural aging process: more fragility and reduced effectiveness of the barrier function against external factors; deficient thermoregulation in response to heat resulting from the decreased number of sweat glands; drier and roughened skin because of oil underproduction resulting from reduced number of sebaceous glands; less sensory stimulation; elasticity reduction, sagging, changes in cellular immune response and thinning of dermis and epidermis; decreased tissue repair ability\textsuperscript{22}. These changes may result in demands for meeting the need to be clean, groomed and protect the skin, making the elderly more vulnerable to dependency problems. For this need were prepared the following nursing diagnoses: Effective capacity to bathe, Impaired capacity to bathe, Effective capacity for self-care, Impaired capacity for self-care, Effective capacity to make oral hygiene, Impaired capacity to make oral hygiene, Peripheral edema, Improved peripheral edema, Impaired skin integrity, Impaired oral mucosa, Intact skin, Dry skin, Pruritus (specify location), Pressure ulcer risk, Impaired skin integrity risk and Pressure ulcer (specify stage and location).

The advancing age brings changes that cause reduced ability to adapt to the environment, recognize and move away from danger because of sensory and cognitive impairments, and environmental risk factors or limitations of the musculoskeletal system, predisposing the elderly to accidents inside and outside the home. These changes may result in demands in meeting the need to avoid dangers. Thus, it is important that nurses assess environmental conditions, identify risk situations, warn the elderly and their families/caregivers and establish a joint plan of action to prevent damage to physical and mental integrity of this
population\textsuperscript{25}. The results allowed the construction of the following nursing diagnoses: Adherence to treatment regimen, Anxiety (specify), Death-related anxiety, Low self-esteem, Acute confusion, Chronic confusion, Effective pain control, Ineffective pain control, Depression, Willingness to maintain improved health, Acute pain (specify intensity and location), Chronic pain (specify intensity and location), Ineffective coping, Improved coping, Lack of adherence to treatment regimen, Evident fragility, Hyperglycemia, Hypoglycemia, Alcohol intake, Impaired health maintenance, Fear, Adequate blood pressure, Abnormal blood pressure, Falls, Depression risk, Fragility risk, Drug intoxication risk, Risk of falls, Risk of caregiver overload, Risk of trauma, Risk of violence directed at others, Disuse syndrome risk, Risk of domestic violence, and Caregiver overload.

Note that diagnoses related to the psychological, social and spiritual/moral needs were also identified and should be included in the nursing care plan, once the basic needs are interdependent and part of an indivisible whole in the constitution of human beings\textsuperscript{36}.

As people age, the social network modifications, sensory physiological changes and the problems inherent in the senescence process are among the major changes that may compromise the independence in meeting the need to communicate. Changes in the elderly's sexual function, as well as myths, taboos and prejudices that revolve around sexuality in old age can also generate demands related to this need\textsuperscript{26}. These are common problems to most seniors and deserve importance due to the negative effects in their daily lives, making social relationships difficult and leading to social isolation. For this need were developed the following nursing diagnoses: Decreased hearing ability, Impaired verbal communication, Impaired sexual performance, Willingness to improved communication, Impaired social interaction, Social isolation, Ineffective sexuality pattern, Impaired family process, Satisfactory family process, Risk of social isolation, Risk of loneliness, Altered sensitivity (specify location) and Chronic sadness.

The need to learn is related to the essential conditions of human survival that enable the acquisition of knowledge, attitudes and skills to modify behaviors with the purpose to maintain or restore health. With advancing age, several factors may compromise the satisfaction of this need, reducing the attention span required in the learning process\textsuperscript{27}.

Considering these aspects, the following nursing diagnoses were elaborated: Poor caregiver's knowledge about care for the elderly, Poor caregiver's knowledge about the elderly's treatment regimen, Poor knowledge of the health status, Poor knowledge of the treatment regimen, Effective memory and Impaired memory.

The social role of the elderly is an important factor in the meaning of aging because it depends on the lifestyle they have led and their current conditions. Thus, work is an important element in the formation of the elderly's personal identity. They have attributed different subjective values to work, such as the desire for recognition and to continue feeling useful in a social context regulated by production value\textsuperscript{28}.

The various changes related to aging may compromise the independence to satisfy the need for occupation for self-realization, for which the following nursing diagnoses were elaborated: Ineffective role performance and Feeling of impotence.

The recreation and leisure activities are essential elements in the elderly's life that provide improved health, level of socialization and interest in life. Such activities are strategically used by the elderly as a way to forget the problems and reflect positively in their physical, mental and social well-being filled with peace and tranquility. On the other hand, the lack of leisure may favor or accentuate loneliness, the difficulty in maintaining interpersonal relationships, and losses in the self-concept, self-worth and self-esteem of the elderly\textsuperscript{29}, causing difficulties in meeting the need to distract oneself. For this need were prepared the following nursing diagnoses: Weak leisure activities, Effective capacity to perform recreational activity, Impaired capacity to perform recreational activity and Improved willingness for recreational activity.

The need to act according to one's beliefs and values is essential for the elderly's quality of life, since religiosity and spirituality are important sources of emotional support for them, have an undeniable role in coping with situations imposed by the aging process, and facilitate the acceptance of losses and other adverse circumstances. Thus, nurses should appreciate beliefs and encourage spiritual practices for the elderly's benefit, given that a spiritual practice or adherence to an ideology enables to maintain psychological integrity and avoid cultural alienation, and helps in the course of implemented treatment, stimulating health promotion\textsuperscript{30}. Considering these aspects, were elaborated the following nursing diagnoses: Spiritual distress, Conflicted religious belief, Hopelessness, Availability for facilitating religious belief, Anticipated mourning process, Dysfunctional grieving process and Suffering (specify).

The nursing diagnoses elaborated in the study and classified according to the Model of Nursing Care have the major purpose of operationalizing comprehensive care to the elderly. The use of this theoretical framework enabled the analysis and understanding of the elderly's complexity when relating their health demands with the essential requirements for the maintenance/recovery of their autonomy and independence, supporting nursing care in a holistic, individualized, humane and resolute approach. Thus, the Model of Nursing Care adapts efficiently to the nursing practices defined in the context of PHC.

CONCLUSION

In total, 127 nursing diagnoses were elaborated in the present study. They contemplated the aspects influencing the health/disease process with the objective to guide the planning of nursing care and the use of a unified language for documentation of clinical nursing practice with the elderly in PHC.

The fact that the nursing diagnoses built in the present study were not submitted to validation by experts is considered a limitation. Thus, further studies should be conducted to validate these nursing diagnoses and verify their applicability to the elderly followed in PHC at household level and in basic health units.

The results of this study can contribute to operationalize the systematization of nursing care, and contribute to the
comprehensiveness of health care for the elderly in PHC, since their context of life and real demands are considered in the elaboration and implementation of the care plan.

We conclude this study by drawing attention to the importance of researches on nursing practice guided by scientific methods and with consistent theoretical framework.

Therefore, nurses from around the world should use the ICNP® and nursing theoretical frameworks in the sphere of care, teaching and research as the possibility of scientific and technological progress to consolidate a reference terminology to be used worldwide in professional nursing practice.

RESUMO

Objetivo: Desenvolver um subconjunto de diagnósticos de enfermagem para idosos acompanhados na Atenção Primária à Saúde, com base no banco de termos para a prática clínica de enfermagem com idosos, na Classificação Internacional para a Prática de Enfermagem (CIPE®) Versão 2013 e no Modelo de Cuidados de Enfermagem. Métodos: Pesquisa descritiva, desenvolvida em etapas sequenciadas de construção e validação do banco de termos, elaboração dos enunciados de diagnósticos de enfermagem, com base nas diretrizes do Conselho Internacional de Enfermeiros e no banco de termos, e categorização dos diagnósticos segundo o Modelo de Cuidados. Resultados: A partir de 359 termos validados foram elaborados 127 enunciados de diagnósticos de enfermagem, distribuídos segundo as necessidades humanas fundamentais. Conclusão: Acredita-se que esses enunciados servirão de base para o planejamento dos cuidados de enfermagem e utilização de uma linguagem unificada para a documentação da prática clínica de enfermagem com idosos na atenção primária.

DESCRITORES

Idoso; Diagnóstico de Enfermagem; Terminologia; Classificação; Atenção Primária à Saúde.

RESUMEN

Objetivo: Desarrollar un subconjunto de diagnósticos de enfermería para ancianos seguidos en la Atención Primaria de Salud, en base al banco de términos para la práctica clínica de enfermería con ancianos, en la Clasificación Internacional para la Práctica de Enfermería (CIPE®) Versión 2013 y el Modelo de Cuidados de Enfermería. Métodos: Investigación descriptiva, desarrollada en etapas secuenciadas de construcción y validación del banco de términos, elaboración de los enunciados de diagnósticos de enfermería, en base a las directrices del Consejo Internacional de Enfermeros y el banco de términos, y la categorización de los diagnósticos según el Modelo de Cuidados. Resultados: Mediante 359 términos validados, fueron elaborados 127 enunciados de diagnósticos de enfermería, distribuídos según las necesidades humanas fundamentales. Conclusión: Se cree que esos enunciados servirán de base para la planificación de los cuidados de enfermería y la utilización de un lenguaje unificado para la documentación de la práctica clínica de enfermería con ancianos en la atención primaria.

DESCRITORES

Anciano; Diagnóstico de Enfermería; Terminología; Clasificación; Atención Primaria de Salud.

REFERENCES


