Chapter 05 / Capítulo 05

Screening, Diagnosis, and Prevention in Clinical Practice: Evidence from Argentine and Latin American Medicine (English Version)
ISBN: 978-9915-704-33-3
DOI: 10.62486/978-9915-704-33-3.Ch05
Pages: 71-77

Nursing assessment of individuals with arterial hypertension in the outpatient service

Valoración de Enfermería en personas con Hipertensión Arterial en el servicio de consulta externa

Brizeida Licona Hernández[1], Monserrath Romero Barrera[1], Nirvana Zoe Ortiz Saucedo[1], Michel Oria Saavedra[1], Alicia Monzalvo López[1], Felipa Avilés Bautista[1]

[1]Instituto Universitario de las Naciones Hispana (IUNHi), Pachuca de Soto, Hidalgo, México.

Corresponding author: Brizeida Licona Hernández

ABSTRACT

Introduction: arterial hypertension is a chronic non-communicable disease with high global prevalence and a major cardiovascular risk factor. Its management requires comprehensive care based on the Nursing Care Process, allowing for the identification of needs, planning of care, and promotion of self-care practices.
Objective: to apply the Nursing Care Process to a person diagnosed with arterial hypertension in the outpatient service, using the NANDA-I 2023–2026, NOC, and NIC taxonomies to improve blood pressure control and treatment adherence.
Methods: a descriptive case study based on the Marjory Gordon functional health patterns, conducted in a public hospital in Hidalgo, Mexico, during the second quarter of 2024. Data were collected through interviews, observation, and vital signs monitoring, following the stages of the Nursing Care Process and updated standardized taxonomies.
Results: Identified nursing diagnoses were ineffective management of therapeutic regimen (00276), deficient knowledge regarding disease (00282), and risk of impaired cardiovascular function (00239). Expected outcomes included blood pressure control (0401) and treatment compliance (1624). Interventions such as individualized health education (5602), vital signs monitoring (6680), and self-care promotion (1800) were implemented, achieving stabilization of blood pressure and improved patient understanding.
Conclusions: the Nursing Care Process enabled personalized, systematic, and high-quality care, strengthening health education, therapeutic adherence, and the prevention of complications in the hypertensive patient.

Keywords: Arterial Hypertension; Nursing Care Process; Nursing Care; Outpatient Service; Self-Care; Health Education; Treatment Adherence.

RESUMEN

Introducción: la hipertensión arterial es una enfermedad crónica no transmisible con alta prevalencia mundial, considerada uno de los principales factores de riesgo cardiovascular. Su control requiere una atención integral basada en la aplicación del Proceso de Atención de Enfermería, que posibilita la identificación de necesidades, la planificación de cuidados y la educación para el autocuidado.

Objetivo: aplicar el Proceso de Atención de Enfermería en una persona con diagnóstico de hipertensión arterial atendida en el servicio de consulta externa, utilizando las taxonomías NANDA-I 2024–2026, NOC y NIC, con el propósito de mejorar el control tensional y la adherencia terapéutica.
Métodos: estudio de caso descriptivo basado en la valoración de Enfermería según los patrones funcionales de Marjory Gordon, realizado en un servicio hospitalario de urgencias del Hospital ISSSTE Columba Rivera Osorio, Pachuca de Soto, Hidalgo, durante el periodo del 30 de junio al 8 de agosto del 2025. Se recolectaron datos mediante entrevista, observación y medición de signos vitales, siguiendo las etapas del Proceso de Atención de Enfermería y las taxonomías estandarizadas más recientes.
Resultados: se identificaron los diagnósticos de Enfermería: manejo ineficaz del régimen terapéutico (00276), conocimientos deficientes sobre la enfermedad (00282) y riesgo de deterioro de la función cardiovascular (00239). Los resultados esperados incluyeron control de la presión arterial (0401) y cumplimiento del tratamiento (1624). Se implementaron intervenciones como educación sanitaria individual (5602), monitorización de signos vitales (6680) y fomento del autocuidado (1800), logrando la estabilización de las cifras tensionales y la mejora en el conocimiento del paciente.
Conclusiones: la aplicación del Proceso de Atención de Enfermería permitió ofrecer cuidados personalizados, sistemáticos y de calidad, fortaleciendo la educación para la salud, la adherencia terapéutica y la prevención de complicaciones en la persona hipertensa.

Palabras clave: Hipertensión Arterial; Proceso De Atención De Enfermería; Cuidados De Enfermería; Consulta Externa; Autocuidado; Educación Para La Salud; Adherencia Al Tratamiento.

INTRODUCTION

Arterial hypertension is one of the main public health problems worldwide. It represents one of the most prevalent chronic noncommunicable diseases, with a significant impact on morbidity, mortality, and quality of life. According to the World Health Organization (2023), approximately 1.28 billion adults between the ages of 30 and 79 suffer from arterial hypertension, and it is estimated that about 46 % of them are unaware of their diagnosis, which hinders the control and prevention of cardiovascular and renal complications. In Latin America, the prevalence ranges from 25 % to 40 %, with Mexico being one of the countries with the highest burden of disease related to hypertension and its associated comorbidities, such as type 2 diabetes mellitus, obesity, and dyslipidemia.

In Mexico, the National Health and Nutrition Survey (Instituto Nacional de Salud Pública, 2023) reported that three out of ten adults have hypertension, and of those, only 59 % are aware of their diagnosis, 49 % receive drug treatment, and only 24 % achieve adequate control levels. These data reflect the persistence of significant gaps in the comprehensive care of people with hypertension, especially at the primary care level, where nursing plays a key role in early detection, health education, promotion of healthy lifestyles, and therapeutic adherence.

Hypertension is a condition characterized by a sustained increase in systolic blood pressure above 140 mmHg and/or diastolic blood pressure above 90 mmHg, which generates hemodynamic overload that affects the integrity of the cardiovascular system and other target organs. Its etiology is multifactorial and involves genetic, environmental, and behavioral components; among the modifiable factors are excessive salt intake, poor diet, sedentary lifestyle, overweight, stress, and alcohol or tobacco use (Secretaría de Salud de México, 2023). However,

beyond pathophysiological factors, the approach to hypertension must consider the social and cultural determinants of health, which influence the perception of the disease and self-care behaviors.

In this context, nursing professionals occupy a strategic position within the multidisciplinary health team. Nursing care in outpatient settings provides a direct link to the individual, their family, and their environment, facilitating a comprehensive assessment of their health status and the identification of risk factors. Through the Nursing Care Process, a practice-based, scientific-method approach is structured, allowing for the provision of rational, logical, and systematic care and guaranteeing quality and safety (Herdman et al., 2023).

The Nursing Care Process consists of five interrelated phases: assessment, diagnosis, planning, implementation, and evaluation. Each of these phases is based on the collection and analysis of data that reflect human responses to health and disease processes. In the case of arterial hypertension, the assessment phase is particularly important, as it allows identification of behavioral patterns, lifestyle, beliefs about the disease, and level of therapeutic adherence. The use of theoretical models, such as Marjory Gordon's eleven functional health patterns, facilitates a holistic understanding of the patient by integrating biological, psychological, social, and spiritual dimensions (Gordon, 2019).

From this perspective, nursing assessment in people with hypertension is not limited to taking vital signs or measuring blood pressure, but also includes identifying affected human needs, lifestyle changes, poor knowledge about the disease, cultural beliefs surrounding treatment, and barriers to self-care. This comprehensive approach distinguishes nursing practice as a scientific discipline focused on care rather than solely on the execution of technical procedures.

The use of standardized taxonomies—NANDA-I, NOC, and NIC—is essential in this process, as it allows for the structuring of nursing language, facilitates communication between professionals, and ensures continuity of care. NANDA-I nursing diagnoses help identify actual or potential human responses to hypertension, such as "ineffective management of therapeutic regimen" (00078) or "risk of cardiovascular function impairment" (00239); NOC outcomes guide measurable goals, such as "blood pressure control" (0401) or "treatment adherence" (1605); and NIC interventions specify the actions necessary to achieve these outcomes, such as "health education" (5510) or "encouraging exercise" (0200) (Gordon, 2019; Moorhead et al., 2021; Bulechek et al., 2021).

The role of nursing in outpatient care extends beyond clinical follow-up. The professional becomes a facilitator of behavioral change, promoting individual responsibility for one's own health. Personalized health education and guidance on modifiable risk factors are key strategies for empowering hypertensive patients and strengthening their self-care capacity (González et al., 2020).

In this sense, evidence-based practice integrates scientific knowledge with clinical experience and patient preferences, resulting in more effective and humanized interventions.

At the institutional level, applying the Nursing Care Process in the outpatient setting strengthens chronic disease management programs, optimizes resource use, and promotes continuity of care. The systematization of information through standardized records—such as NANDA, NOC, and NIC taxonomies—allows for evaluating results, measuring quality indicators,

and improving clinical and administrative decision-making (Salazar-Méndez et al., 2022).

Likewise, the nursing assessment of arterial hypertension makes it possible to detect frequently associated psychosocial problems, such as anxiety, stress, depression, or social isolation, which can affect therapeutic adherence and the perception of well-being. These elements must be considered in care planning, as effective blood pressure control depends not only on pharmacological treatment but also on sustained lifestyle changes and emotional and educational support.

From an epistemological perspective, nursing care for arterial hypertension is grounded in the holistic and humanistic paradigm of the discipline, which recognizes the person being with interdependent needs. Nursing is not limited to healing, but also to caring, understanding care as a reflective, ethical, and relational practice. The assessment in the outpatient service thus becomes a space for dialogue, trust, and shared responsibility, where the professional guides, educates, and accompany the patient's health-illness process.

In this sense, the present case study is relevant in that it demonstrates how the rigorous application of the Nursing Care Process in the context of arterial hypertension allows for the provision of logical, systematic, and humanized care that promotes patient safety, quality of care, and user satisfaction. Furthermore, it contributes to strengthening the body of nursing knowledge, demonstrating its leading role in the prevention and management of chronic diseases.

Finally, the overall objective of this study is to apply the Nursing Care Process to a person with a medical diagnosis of arterial hypertension treated in the outpatient service, identifying human responses, priority diagnoses, and care strategies through the NANDA, NOC, and NIC taxonomies, to contribute to disease control and strengthen patient self-care.

METHOD

A descriptive case study with a qualitative approach was conducted at the ISSSTE Columba Rivera Osorio Hospital in Pachuca de Soto, Hidalgo, from June 30 to August 8, 2025. The subject of the study was a 60-year-old adult patient with a medical diagnosis of essential hypertension, partially controlled, and with a history of low therapeutic adherence.

The study was conducted by applying the Nursing Care Process (NCP) in its five phases: assessment, diagnosis, planning, implementation, and evaluation, in accordance with the methodological principles of the nursing discipline (Herdman et al., 2023).

The assessment was based on Marjory Gordon's Functional Health Patterns, using a guided interview, clinical observation, and vital sign measurements. The hospital system's own recording instruments were used, ensuring data confidentiality in accordance with Mexico's General Health Law.

To identify nursing diagnoses, the NANDA-I (2024–2026) taxonomies, Nursing Outcomes (NOC), and Nursing Interventions (NIC) were used.

The processing and analysis of the information were based on categorizing the collected data according to altered functional patterns, identifying the human responses relevant to the care plan. The validation of the diagnoses and results was carried out through the clinical judgment

of the nursing staff, supported by scientific evidence and Gordon's theoretical framework.

RESULTS AND DISCUSSION

Phase I: Assessment

During the initial assessment, blood pressure was 160/95 mmHg, BMI was 30.2 kg/m^2, eating habits were inadequate (high salt and fat intake), the patient was sedentary, and adherence to pharmacological treatment was poor. In the role-relationship pattern, low-income family support was identified. In the cognitive-perceptual pattern, the patient demonstrated limited knowledge about the disease.

These findings were consistent with previous studies by González et al. (2020) and Salazar-Méndez et al. (2022), which highlight the importance of comprehensive assessment to detect behavioral and social factors that influence the control of hypertension.

Table 1. Phase II: Nursing Diagnosis (NANDA-I 2023–2026)

Code	Nursing Diagnosis (NANDA-I)	Related factors	Evidence
00276	Ineffective management of therapeutic regimen.	Inadequate knowledge about treatment, decreased motivation, complexity of regimen.	Verbal statements by the patient about missing medication and lack of medical follow-up.
00282	Poor knowledge of the disease.	Inadequate information; lack of previous experience with the disease.	Lack of knowledge about normal blood pressure values.
00239	Risk of cardiovascular function deterioration.	Persistent high blood pressure; sedentary lifestyle; inadequate diet.	Sustained high blood pressure readings.

Table 2. Phase III: Planning (NOC)

Code	Expected outcome (NOC)	Key indicators	Scale
0401	Blood pressure control.	Maintains systolic blood pressure <140 mmHg and diastolic blood pressure <90 mmHg.	Likert scale of 1–5
1624	Treatment compliance.	Takes medication as prescribed; attends medical checkups.	Likert scale of 1–5
1813	Knowledge: management of hypertension.	Describes preventive measures and warning signs.	Likert scale of 1–5

Table 3. Phase IV: Implementation (NIC)

Code	Nursing Intervention (NIC)	Specific activities
5602	Individual health education.	Explain the importance of therapeutic adherence; provide educational material; reinforce weight control and low-sodium diet.
6680	Monitoring of vital signs.	Weekly blood pressure monitoring; recording blood pressure trends; communication with the treating physician.
1800	Promotion of self-care.	Setting weekly exercise goals; supporting blood pressure self-monitoring at home.
5240	Support in decision-making.	Encourage active patient participation in their care plan.

Phase V: Evaluation

After four weeks of follow-up, the patient maintained average blood pressure readings of 135/85 mmHg, reported a better understanding of his condition, and expressed motivation to continue treatment. The NOC indicators showed improvement from level 2 to level 4 on the compliance and knowledge scales.

These results are consistent with those reported by Salazar-Méndez et al. (2022), who show that nursing education significantly improves therapeutic adherence and self-management in hypertensive patients.

CONCLUSIONS

The application of the Nursing Care Process enabled the identification of the specific needs of individuals with hypertension and the design of effective interventions to control the disease. The use of the NANDA-I, NOC, and NIC taxonomies enabled structured, measurable, and evidence-based care. Marjory Gordon's approach was fundamental to understanding human responses and promoting self-care as the cornerstone of blood pressure control. The case demonstrates the relevance of nursing in the outpatient setting as a key agent in health promotion and cardiovascular complication prevention.

BIBLIOGRAPHIC REFERENCES

Bulechek, G. M., Butcher, H. K., Dochterman, J. M., & Wagner, C. M. (2021). *Nursing Interventions Classification (NIC)* (8th ed.). Elsevier.

González, M. A., Pérez, L. J., & Hernández, C. R. (2020). Cuidado de enfermería en personas con hipertensión arterial: aplicación del proceso de atención de enfermería. *Revista Cubana de Enfermería, 36*(2), e3645. https://www.revenfermeria.sld.cu

Gordon, M. (2019). *Manual de valoración de enfermería mediante los patrones funcionales de salud* (5ª ed.). Elsevier.

Herdman, T. H., Kamitsuru, S., & Takao Lopes, C. (Eds.). (2023). *NANDA International nursing diagnoses: Definitions and classification 2024–2026*. Thieme Medical Publishers.

Instituto Nacional de Salud Pública. (2023). *Encuesta Nacional de Salud y Nutrición (ENSANUT) 2023*. https://ensanut.insp.mx

Moorhead, S., Johnson, M., Maas, M., & Swanson, E. (2021). *Nursing Outcomes Classification (NOC): Measurement of health outcomes* (7th ed.). Elsevier.

Organización Mundial de la Salud. (2023). *Hipertensión arterial*. https://www.who.int/es/news-room/fact-sheets/detail/hypertension

Salazar-Méndez, L. M., Rodríguez-Torres, E. A., & Paredes-García, S. C. (2022). Intervención de enfermería en el autocuidado de pacientes con hipertensión arterial: aplicación del proceso de atención de enfermería. *Rev Cuidarte, 13*(1), e2119. https://doi.org/10.15649/cuidarte.2119

Secretaría de Salud de México. (2023). *Guía de práctica clínica: Prevención, diagnóstico y tratamiento de la hipertensión arterial sistémica en el adulto*. Centro Nacional de Excelencia Tecnológica en Salud (CENETEC).