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### Instrument for assessing the performance of nursing professionals in primary health care of Diabetes Mellitus

Instrumento de avaliação do desempenho dos profissionais de enfermagem da atenção primária à saúde do Diabetes Mellitus

Instrumento para la valoración de la actuación de los profesionales de enfermería en la atención primaria en salud de la Diabetes Mellitus

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#### ARTICLE HISTORY

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#### **ARTICLE INFORMATION**

Science-Metrix Classification (Domain): Health Sciences Main topic: Primary health care of diabetes mellitus Main practical implications: Design an instrument that allows for the assessment of nursing performance in Diabetes Mellitus in primary care.

#### Originality/value:

This study is important in view of the need to create an instrument that allows the assessment of nursing performance with Diabetes Mellitus e patients. The instrument created becomes a very useful tool to assess the relevance of nursing in the care provided to patients with Diabetes Mellitus in the different health centers of the PHC and through a care plan focused on the needs of the patient, this instrument It is a complement to the nursing staff and identifies the most frequent possible problems that may limit the provision of quality care, since the objective of the care staff will be to ensure a better quality of life and reduce the costs of care for the state.

#### ABSTRACT

Introduction: According to the WHO, diabetes is a chronic disease that occurs when the pancreas does not produce enough insulin or the body does not effectively use the insulin it produces. Objective: Design an instrument that allows for the assessment of nursing performance in Diabetes Mellitus in primary care. Method: Research with a quantitative approach, experimental, descriptive, and transversal design. Development of an instrument to determine its reliability and content validity. The sample used for the evaluation of internal reliability was made up of 10 patients diagnosed with diabetes mellitus who are treated in the health centers of zone 3 belonging to the Pelileo Canton, Province of Tungurahua, who agreed to collaborate with the research, to check the understanding of the questions and the operation of the instrument. Internal consistency was determined by calculating Cronbach's Alpha coefficient. Results: Expert professionals in diabetes mellitus assessed the pertinence, relevance, and clarity of the 20 items divided into four dimensions, qualifying them as applicable. The internal consistency of Cronbach's Alpha was 0.97, which demonstrates that the formulation of the items is reasonable, satisfactorily defined, and suitable in the presence of the questionnaire. Conclusions. The results obtained to evaluate the instrument and the application of the pilot test were adequate. This valid and reliable instrument justifies its use in the research field. The instrument is easy and quick to apply, allowing us to know the perception of patients with Diabetes Mellitus about the care received by the nursing staff in the PHC.

Keywords: Diabetes Mellitus, Primary Health Care, nursing care, validation.

#### RESUMO

Introdução: Segundo a OMS, o diabetes é uma doença crônica que ocorre quando o pâncreas não produz insulina suficiente ou o organismo não utiliza de forma eficaz a insulina que produz. Objetivo: Desenhar um instrumento que permita avaliar o desempenho do enfermeiro em Diabetes Mellitus na atenção primária. Método: Pesquisa com abordagem quantitativa, delineamento experimental, descritivo e transversal. Desenvolvimento de um instrumento para determinar sua confiabilidade e validade de conteúdo. A amostra utilizada para avaliação da confiabilidade interna foi composta por 10 pacientes com diagnóstico de diabetes mellitus atendidos nos centros de saúde da zona 3 pertencentes ao Cantão Pelileo, Província de Tungurahua, que concordaram em colaborar com a pesquisa, para verificar a compreensão das questões e do funcionamento do instrumento. A consistência interna foi determinada através do cálculo do coeficiente Alfa de Cronbach. Resultados: Profissionais especialistas na temática diabetes mellitus avaliaram a pertinência, relevância e clareza dos 20 itens divididos em 4 dimensões, qualificando-os como aplicáveis. A consistência interna do Alfa de Cronbach foi de 0,97; o que demonstra que a formulação dos itens é razoável, definida de forma satisfatória e adequada na presença do questionário. **Conclusões.** Os resultados obtidos na avaliação do instrumento e na aplicação do teste piloto foram adequados. Este instrumento é válido e confiável, o que justifica sua utilização no campo da pesquisa. O instrumento é de fácil e rápida aplicação, permitindo conhecer a percepção dos pacientes com Diabetes Mellitus sobre os cuidados recebidos pela equipe de enfermagem na APS. Palabras Clave: Diabetes Mellitus, Atenção Primária à Saúde, cuidados de enfermagem, validação.

Palavras-chave: Diabetes Mellitus, Atenção Primária à Saúde, cuidados de enfermagem, validação.

#### RESUMEN

Antecedentes: Según la OMS, la diabetes es una enfermedad crónica que se produce cuando el páncreas no produce suficiente insulina o el cuerpo no utiliza eficazmente la insulina que produce. Objetivo: Diseñar un instrumento que permita realizar la valoración de la actuación de enfermería en Diabetes Mellitus en la atención primaria. Método: Investigación de enfoque cuantitativo, de diseño experimental, descriptivo y transversal. Elaboración de un instrumento para determinar su fiabilidad y validez de contenido. La muestra utilizada para la evaluación de la confiabilidad interna estuvo compuesta por 10 pacientes diagnosticados con diabetes mellitus que son atendidos en los Centros de salud de la zona 3 pertenecientes al Cantón Pelileo Provincia de Tungurahua que aceptaron colaborar con la investigación, para comprobar la comprensión de las preguntas y el funcionamiento del instrumento. La consistencia interna se determinó a través del cálculo del coeficiente Alfa de Cronbach. Resultados: Los profesionales expertos en el tema de diabetes mellitus valoraron la pertinencia, relevancia y claridad de los 20 ítems divididas en 4 dimensiones calificándolas como aplicables. La consistencia interna de Alfa de Cronbach fue de 0,97; lo que demuestra que la formulación de los ítems es razonables, satisfactoriamente definidos y es apto en la presencia del cuestionario. Conclusiones. Los resultados obtenidos para evaluar el instrumento y la aplicación de la prueba piloto fueron adecuados. Este instrumento es válido y confiable lo que se justifica su utilización en el ámbito investigativo. El instrumento es de fácil y rápida aplicación permitiendo conocer la percepción de los pacientes con Diabetes Mellitus sobre la atención recibida por el personal de enfermería en la APS.

Palabras clave: Diabetes Mellitus, Atención Primaria en Salud, cuidados de enfermería, validación.

# INTRODUCTION

According to the WHO, diabetes is a chronic disease that occurs when the pancreas does not produce enough insulin or the body does not effectively use the insulin it produces. There are three main types of diabetes: type 1, type 2, and gestational diabetes. Type 2 diabetes is the most common, accounting for approximately 85% to 90% of all cases (OMS, 2023).

Primary health care enables health systems to meet people's health needs, from health promotion to disease prevention, treatment, rehabilitation, palliative care and more. (WHO, n.d.).

This means that the main objective of primary health care is to improve people's quality of life in terms of health. This requires measures that guarantee that the needs of the entire population are met equally. To achieve this goal, it is committed to preventing disease, providing treatment and helping patients recover. (PAHO, s/f). Primary health care consists of dimensions that make it possible to provide better care to patients, these dimensions are:

**Accessibility:** Accessibility represents the functionality and possibility of having adequate health conditions; it is defined as a primary element for the development of proposed activities. (Bernal et al., 2021)

**Continuity of care:** It is the relationship between health personnel-patient/health professional-Health Center to facilitate the development of a treatment or therapeutic adherence.. (Lerea et al., 2019)

**Comprehensiveness:** Services available and provided: Comprehensiveness in the health service implies the quality of care and health management, where the autonomy, cultural and social diversity of the communities must be integrated. (Angelina et al., 2022)

Coordination of care: Coordination of care is a function of health facilities, since it links each service provided, that is, it covers the needs, so that the user receives care appropriate to each health problem. (Panchana et al., 2020)

Diabetes is a disease of increasing incidence that affects approximately 500 million people worldwide, more than 90% of whom suffer from Type 2 Diabetes Mellitus, which is increasingly common in older adults (20%) and adult population (9%). The World Health Organization estimated in 2019 that the number of people over 65 years of age with diabetes was 111 million, a figure that would reach 276 million in 2045. (Erika Nelly Montoya Vega et al., 2021)

An estimated 62 million people in the Americas have Type 2 Diabetes Mellitus. This figure has tripled in the region since 1980 and is expected to reach the 109 million mark in 2040. In 2019, diabetes was the sixth leading cause of death in the Americas, with an estimated 244,084 deaths directly attributable to diabetes. It is the second leading cause of disability-adjusted life years and reflects the limiting complications experienced by people with diabetes throughout their lives. (Diabetes - OPS/OMS | Organización Panamericana de la Salud, 2023)

In Ecuador, figures from the Institute of Statistics and Censuses (INEC) say that 50,000 people have died from Diabetes Mellitus in the last 10 years, which places it as the second cause of death, behind ischemic heart diseases. A disease that advances In Ecuador, around 37,000 new cases of diabetes are registered every year, according to figures from the Ministry of Health. Of this number, 98% corresponds to type 2 diabetes, that is, diabetes that develops due to poor eating habits, heredity and a sedentary lifestyle. (La diabetes en Ecuador - Diabetes UIO, 2024)

Diabetes treatment includes controlling blood glucose through a combination of diet and physical activity and, if necessary, medication. It is possible that elements of successful management, such as the availability of a multidisciplinary team trained in diabetes management or regular evaluation by specialist physicians, may be difficult to implement in low-resource settings.

In this regard, a recently published study found a total unmet need for diabetes care of 77% in low- and middleincome countries. Deficits were identified at the time of diagnosis due to lack of testing and during follow-up with suboptimal levels of glycemic control. Therefore, there is a need to develop clinical guidelines for chronic diseases that can be realistically applied in resource-limited primary care settings. (Bernal-Soriano et al., 2021)

Health professionals, particularly nurses, aim to promote the health of people with Diabetes Mellitus, so that they can have better control of the disease. Promoting the person's adherence to care and treatment is of great relevance for the proper management of Diabetes Mellitus. This can be achieved by encouraging lifestyle changes that promote adjustments to living with chronicity. (Boell et al., 2020)

Patients with type 2 diabetes will receive gradual treatment starting with exercise and diet and adding oral antidiabetics or other non-insulin drugs if control is not achieved with the above alone. In those who do not achieve correct glycemic management with the previous steps, they may need to start insulin therapy (in the form of basal insulin once a day

or with multiple doses of insulin) (Chocho Chocho, 2023).

# Nursing care

The importance of glycemic control to reduce complications in diabetic subjects has been clearly demonstrated in long-term prospective, randomized, and intervention studies.

It is essential in the care of diabetic patients to simultaneously manage the other metabolic variables that coexist altered with hyperglycemia, that is, the concentration of serum cholesterol, HDL cholesterol, LDL and triglycerides must be strictly monitored, as well as the variables weight, body mass (BMI), waist-hip ratio and systolic and diastolic blood pressure.

- To minimize the incidence of acute and chronic complications, the following parameters should be adjusted for each individual patient:
- Educating the diabetic patient is crucial to guarantee the success of all therapeutic forms.
- Ensure a multicomponent insulin regimen or oral hypoglycemic agents, combined or separated, in schemes that promote the patient's normoglycemia.
- Encourage a balance between food consumption, physical activity, and medication dosage.
- Familiarize the patient with self-monitoring of blood glucose.
- It is necessary to encourage communication between the patient and health care personnel.
- Psychological support is essential
- Exercise is the cornerstone in the treatment of type 2 diabetic patients, as it reduces insulin resistance, body weight, lipid profiles and other cardiovascular risk factors. (Ministerio de Salud Pública, 2017)

Regarding the care provided to patients by the nursing staff, they highlight as favorable the attention, kindness, support and design of objectives that have the greatest influence on achieving a satisfactory perception of the care received, but there are also aspects that are should improve, such as the lack of information about the different support groups for these patients, lack of help in solving problems and doubts that patients have, another key point that is important to improve is providing individualized care for each patient since each It is a very different world and not everyone needs the same care. (Romero Carvajal et al., 2022)

Therefore, it is necessary to implement effective interventions for both the prevention and treatment of the disease. In this sense, the multidisciplinary attention offered to this type of patient, care, is important to the extent that its pedagogical orientation allows the disease to be prevented through educational strategies or also through the application of the care process to identify the need for comprehensive, effective and efficient patient care. (Dayana Margarita Sánchez Benavides et al., 2023)

The objective of this research was to allow the assessment of nursing actions in primary health care, to reinforce nursing care in prevention, monitoring, education and treatment, improving the quality of life of diabetic patients and thereby preventing it from continuing. increasing hospitalizations and public expenses due to the complications that this disease generates, at the second level of care.

# METHODOLOGY

This research had a quantitative approach, experimental, descriptive and transversal design.

An instrument was designed to assess the performance of nursing professionals in primary health care for Diabetes Mellitus. The process began with the operationalization of the variables. A bibliographic search was carried out on the dimensions that were required for the implementation. of the instrument, once the design of the instrument was completed, the instrument was reviewed and validated by 3 experts on the subject of diabetes mellitus, with academic training and experience of more than 15 years, who issued their opinions regarding the relevance and clarity of each of the items and the established scales, in addition to their respective observations.

The instrument is composed of 4 dimensions that address the following indicators of promotion, prevention, monitoring and pharmacological treatment in diabetes mellitus, which consists of 20 questions in its entirety, where 19 questions are summative that apply a Likert-type scale with assessment from 1 to 5 points, in which never = 1, almost never = 2, = sometimes = 3, almost never = 4, always = 5, and a question that describes the material by which patients receive information from the doctor. nursing professional presenting talks, videos, brochures, models or workshops as options.

### **Table 1**. Instrument for assessing the performance of nursing professionals in primary health care: Diabetes Mellitus

	NEVER	HARDLY EVER	SOMETIMES	EACH MONTH	ONCE A WEEK
LIKERT TYPE SCALE	NEVER	HARDLY EVER	SOMETIMES	EACH MONTH	UNCE A WEEK
At your health center. How often does the nursing professional talk to you about preventing complications caused by diabetes mellitus?					
Do you receive information about measures to reduce blood sugar levels from the nursing professional at your health center?					
LIKERT TYPE SCALE	NEVER	HARDLY EVER	SOMETIMES	ALMOST ALWAYS	ALWAYS
Does the nursing professional provide you with clear information that you can easily understand?					
From nursing, how often do you receive information about the mportance of healthier lifestyle changes in the entire family circle?					
Indicate what means the nurse uses to provide educational information about diabetes mellitus.	СНАТ	VIDEOS	TRIPTYCHS	MODELS	WORKSHOPS
ANSWER THE QUESTIONS ACCORDING TO THE ACTIVITIES CAR	RIED OUT BY	THE NURSING P	ROFESSIONAL TO P	REVENT DIABETES MEI	LITUS
LIKERT TYPE SCALE	NEVER	HARDLY EVER	SOMETIMES	ALMOST ALWAYS	ALWAYS
Climbing stairs, dancing, gardening, including mowing the lawn, iogging, swimming and walking, playing helps reduce blood sugar levels and the risk of diabetes complications. Do you receive these recommendations from the nursing professional?					
Does the nursing professional provide you with healthier alternatives for a balanced diet such as: vegetables, fruits, low- fat dairy products, grains, white meat, reduced sugar and salt?					
Does the nursing professional mention the factors that put you at risk for cardiovascular, kidney or visual complications?					
When taking your blood glucose, does the nursing professional explain the correct steps for a good measurement?					
ANSWER THE QUESTIONS ACCORDING TO THE FOLLOW-UP TH	AT THE NUR	SING PROFESSIO	NAL CARRIES OUT I	N YOUR HEALTH CENT	ER.
LIKERT TYPE SCALE	NEVER	HARDLY EVER	SOMETIMES	ALMOST ALWAYS	ALWAYS
Is the nursing professional interested in you knowing your blood glucose level once the measurement is performed?					
How often does the nursing professional re-explain to you the steps you must follow to maintain strict medical control?					
When you miss a medical check-up, does the nursing professional contact you by phone call?					
Does the nursing professional refer you to your family doctor?					
Do you receive home visits from nursing staff?					
When faced with a possible complication of diabetes, does the nursing professional explain the steps you should take?					
ANSWER THE QUESTIONS BASED ON THE INFORMATION ABOU	JT THE DRUG	TREATMENT OF	DIABETES MELLITU	s.	
LIKERT TYPE SCALE	NEVER	HARDLY EVER	SOMETIMES	ALMOST ALWAYS	ALWAYS
After receiving pharmacological treatment, how often does the nursing professional explain to you that it is free and that you can pick it up at the pharmacy?					
Even if the doctor has explained to you how to follow the pharmacological treatment. Does the nursing professional tell you again how, at what time and what would happen if you do not follow the treatment correctly?					
Does the nursing professional explain to you the risks of not complying with the indicated treatment?					
Does the nursing staff explain to you how to administer subcutaneous insulin?					
Does the nursing professional explain to you about the side effects of the medication you receive?					

Preparation: Authors (2024)

Source: Type 2 Diabetes Mellitus Clinical Practice Guideline (CPG) 2017.

**INSTRUMENT APPLICATION PROCESS:** summative dimensions were implemented with a Likert-type scale with a rating of 1 to 5 points, which, never = 1, almost never = 2, = sometimes = 3, almost never = 4, always = 5.

A pilot test was carried out on 10 patients diagnosed with diabetes mellitus who are treated in the health centers of zone 3 belonging to the Pelileo Canton, Province of Tungurahua. The patients were randomly chosen from a group of patients where, prior to reading and signing the informed consent, the patients understood the objective of the study, the instructions and each of the items mentioned at that time, which they did not have any problem in. agree to participate in the research.

### **Ethical aspects**

This study adhered to the provisions of the Declaration of Helsinki (2017) provided by the General Health Law, where the ethical principles that protect the subjects participating in the study are applied. The confidentiality of the information was protected and informed consent was obtained from the people exposed to the research and subsequently (autonomy) was applied, with this people have the right to decide if they want to participate in the research (Arévalo et al., 2023).

# **RESULTS AND DISCUSSION**

After obtaining the results of the surveys, the measurement was carried out with the Cronbach's alpha test, which gave us a result of 0.97, which guaranteed the reliability, correlation of the items and internal consistency of the instrument. This is a coefficient that serves to measure the reliability of a scale, which produced a result of excellent application as shown in the Table. (Gabriel Pérez-León, 2022a).

**Table 2**. Results Of The Cronbach Alpha Test By Dimensions

First dimension: Health promotion

Reliability statistics			
Cronbach's alpha	N of elements		
,951	4		

Second dimension: Prevention	Second	dimension:	Prevention
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Reliability statistics			
Cronbach's alpha	N of elements		
,913	4		

### Third dimension: Monitoring

Reliability statistics			
Cronbach's alpha	N of elements		
,886	6		

Fourth dimension: Pharmacological treatment

Reliability statistics			
Cronbach's alpha	N of elements		
,857	5		

Preparation: Authors (2024)

The Cronbach's alpha coefficient applied to the items of the health promotion dimension that was applied through SPSS where the result was 0.951, which maintains an excellent reliability score, since it is greater than 0.9 and the application proceeds.

The Cronbach's alpha coefficient applied to the items of the prevention dimension that was applied through SPSS where the result was 0.913, which maintains an excellent reliability score, since it is greater than 0.9 and the application proceeds

The Cronbach's alpha coefficient applied to the items of the monitoring dimension was applied using SPSS where the result was 0.886, which maintains a good reliability score, since it is greater than 0.8 and the application proceeds.

The Cronbach's alpha coefficient applied to the items of the pharmacological treatment dimension that was applied through SPSS where the result was 0.857, which maintains a good reliability score, since it is greater than 0.8 and the application proceeds.

Table 3. Genera	Statistics	of the	Instrument
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Reliability statistics		
Cronbach's		
alpha	N of elements	
,972	19	

Preparation: Authors (2024)

The Cronbach's alpha coefficient applied to the items of the construct, and which was measured using SPSS, gave a result of 0.972, which maintains an excellent reliability score, since it is greater than 0.9 and is applied to the patients. with diagnosis of Diabetes mellitus.

This study proposes the application of the questionnaire to nursing professionals in the health sector at the primary care level, because it allows patients to be quickly and easily characterized from the perspective of the perceived quality of care and guides the decision-making process. of timely measures that allow the patient to be satisfied with having received excellent quality care.

The instrument was developed and evaluated several aspects regarding the validity of the "Instrument for the assessment of the performance of nursing professionals in primary health care: diabetes mellitus".(Gabriel Pérez-León, 2022a)As a final result, an instrument was obtained consisting of 20 items that represent 4 dimensions regarding the correct management of diabetic patients, required by the Diabetes Mellitus type 2 clinical practice guide of the MSP.(Ministerio de Salud Pública, 2017)The instrument focuses on promotion, prevention, monitoring and pharmacological treatment and the peculiarity of this instrument is that it assesses the skills of nurses carried out in diabetic patients.

Primary Health Care (PHC) is responsible for implementing comprehensive health care at a first level of care to the community, where nursing staff play a fundamental role in different functions and their contribution is undeniable at this level of care and has become increasingly evident, not only in terms of direct care performance based on specific knowledge of nursing staff, but also in the management of different health plans involved in various stages of the life cycle. (García Vera & Aparecida Barbosa Merighi, 2018)

Health professionals, particularly nursing staff, aim to promote the health of people with Diabetes Mellitus, so that they can have better control of the disease. Promoting the person's adherence to care and treatment is of great relevance for the proper management of Diabetes Mellitus. (Boell et al., 2020)

This can be achieved by promoting changes in lifestyle, adherence to treatment, attendance at controls, verification of danger signs, which promote adherence to treatment to keep the condition under control and thus avoid its complications. (Angelucci-Bastidas et al., 2021)

Clinical practice guidelines (CPG) are a tool that focuses especially on treatment strategies; changes in lifestyle and pharmacological and non-pharmacological treatment. The four dimensions are related to the implementation of exercises, having a healthy diet, information to patients and treatment management. (A Ballesteros-Álvaro et al., 2023)

The Ecuadorian Clinical Practice Guidelines for Diabetes Mellitus cover 4 dimensions: promotion, prevention, monitoring and pharmacological treatment.

The 4 dimensions are aimed at preventing complications of Diabetes Mellitus in patients, so they recommend doing at least 150 minutes of exercise per week. Likewise, it recommends changing the diet with the consumption of fruits, vegetables, low-fat dairy products, whole grains, vegetable proteins, and reducing sugar. The goal is to have a healthy weight and an adequate body mass index. (Flood et al., 2022)

Regarding the follow-up of diabetic patients, home visits are aimed at visiting patients and their families. As well as measuring blood glucose levels, evaluating your weight, examining your feet. Make phone calls in case patients do not come to scheduled check-ups and verify the reason for this. (Sanhueza-Muñoz et al., 2022)

In the last dimension it is related to the pharmacological treatment, which was evaluated through six items, which assess the recommendations regarding taking the medications, the dosage, indicated times and what complications could occur if the treatment is not followed properly, which fit the first 3 dimensions where it recommends a change in lifestyle and adherence to pharmacological treatment. (Irene et al., 2024)

Research confirms that diabetes creates a dependency regarding the progression of the disease that increases with the age of the patient since, depending on the process, more resources, services, materials, procedures, medications, among others, are required. (Guamán Tacuri & López Pérez, 2023)

For this reason, it is considered essential that patients be managed comprehensively in Primary Health Care in order

to reduce the rate of complications, hospitalization and mortality of patients diagnosed with diabetes mellitus through coverage, detection and case surveillance, adherence to treatment, frequent controls, education and patient self-care. (Guamán Tacuri & López Pérez, 2023).

# CONCLUSIONS

The bibliographic search allowed the operationalization of the variables with a scientific basis attached to the regulations established by the Ministry of Public Health regarding the management of arterial hypertension, with the purpose of establishing how the variables were measured to obtain clear and truthful information that helps us achieve the proposed objective (Ministerio de Salud Pública, 2019).

The measurement of Cronbach's alpha reliability allowed us to measure the reliability of the instrument, so that it produced results of high reliability(Gabriel Pérez-León, 2022b). Consequently, the instrument made it possible to effectively and quickly assess the performance of the nursing professional, where the patient evaluated them through clear dimensions that addressed the promotion, prevention, monitoring and treatment of hypertensive patients(Costa R et al., 2018).

Through the creation and validation of the instrument for the assessment of nursing performance in hypertensive patients, it is intended that it be easily applicable at the level of Primary Health Care, evaluating the actions of the care received by the nursing staff. nursing, focusing on 4 important axes such as promotion, prevention, monitoring and pharmacological treatment in this pathology considered chronic degenerative.

The results of the analysis using Cronbach's alpha test showed a reliability index of 0.965, which is considered excellent, despite the fact that in the reliability analysis of the health promotion dimension it maintained a reliability index of 0.714, which indicated that the suggested items did not conform to what was required by the test and as a result it maintains acceptable reliability.

Faced with the need to create an instrument that allows the assessment of nursing performance with Hypertensive patients. The instrument created becomes a very useful tool to assess the relevance of nursing in the care provided to patients with HTN in the different health centers of the PHC and through a care plan focused on the needs of the patient, this instrument It is a complement to the nursing staff and identifies the most frequent possible problems that may limit the provision of quality care, since the objective of the care staff will be to ensure a better quality of life and reduce the costs of care for the state.

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B. data research and statistical analysis:	50%	50%	
C. elaboration of figures and tables:	50%	50%	
D. drafting, reviewing and writing of the text:	50%	50%	
E. selection of bibliographical references	50%	50%	
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