

## Use and adherence to pharmacological treatment in patients with chronic noncommunicable diseases

El uso y adherencia al tratamiento farmacológico en pacientes con enfermedades crónicas no trasmisibles

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### ABSTRACT

TES teachers and students are carrying out research that responds to the project: Promotion strategies on adherence to pharmacological treatment in patients at the León Becerra Hospital in Guayaquil, the result of one of their activities is reflected in this article. Meanwhile, it is crucial to provide a complete support system that addresses both the medical aspects of the treatment. Therefore, the study focuses on identifying and addressing the patient's beliefs and perceptions about the medications and the underlying disease. A mixed methodology was used that combined field and descriptive research, and various methodological approaches were used. Among the theoretical methods, the analysis-synthesis, the inductive-deductive approach and the systemic-structural approach were applied. The empirical methods were observation, interview, survey and documentary review. This methodological approach allowed us to fulfill the objective of providing a theoretical basis that is based on the design of health promotion strategies aimed at improving adherence to pharmacological treatment and promoting a culture of safety among patients with NCDs at the León Becerra Hospital in Guayaquil. The sample consisted of

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patients with chronic diseases aged 35 to 80 years. In summary, this study has been instrumental in understanding patients' perceptions of medications in chronic non-communicable diseases.

**Key words:** Diseases, Chronic Diseases, Medications, Adherence, Treatment.

## RESUMEN

Los docentes y estudiantes del TES, están realizando una investigación que responde al proyecto: Estrategias de promoción sobre la adherencia al tratamiento farmacológico en pacientes del Hospital León Becerra de Guayaquil, cuyo resultado de una de sus actividades se ve reflejada en este artículo. En tanto, es crucial proporcionar un sistema de apoyo completo que aborde tanto los aspectos médicos del tratamiento, Por ende, el estudio se centra en identificar y atender las creencias y percepciones del paciente sobre los medicamentos y la enfermedad subyacente. Se empleó una metodología mixta que combinó la investigación de campo y la descriptiva, se utilizaron diversos enfoques metodológicos. Entre los métodos teóricos se aplicaron el análisis-síntesis, el enfoque inductivo-deductivo y el enfoque sistémico-estructural. Los métodos empíricos fueron la observación, la entrevista, la encuesta y la revisión documental. Este enfoque metodológico permitió cumplir el objetivo de brindar una base teórica que parte del diseño de estrategias sobre la promoción de la salud dirigidas a mejorar la adherencia al tratamiento farmacológico y a promover una cultura de seguridad entre los pacientes con ECNT del Hospital León Becerra de Guayaquil. La muestra consistió en pacientes con enfermedades crónicas de 35 a 80 años. En resumen, este estudio ha sido fundamental para comprender las percepciones de los pacientes sobre los medicamentos en enfermedades crónicas no transmisibles.

**Palabras clave:** enfermedades, Crónicas, No Transmisibles , Adherencia, Tratamiento.

## INTRODUCTION

Initiating drug treatment brings with it a number of significant challenges, especially when faced with chronic illness. In many cases, people in this situation suffer not only the physical burden of the disease, but also a considerable emotional and psychological

burden. The assimilation of this new reality can be a long and difficult process, requiring time and adequate support. In addition to the patient, close social systems, such as family, friends and caregivers, are also affected by this transition, underscoring the importance of addressing not only medical needs, but also emotional and social needs during this process.

The complexity of chronic noncommunicable diseases can create additional stress, anxiety and worry for both the patient and their loved ones. Therefore, it is crucial to provide a comprehensive support system that addresses not only the medical aspects of treatment, but also the emotional and social needs of all parties involved. This holistic approach can contribute to improving the patient's quality of life and promote better long-term adherence to treatment.

The issue surrounding the predominant orientation of studies in the health field towards the development of curative practices rather than preventive and promotive measures is a matter of growing concern. For decades, medicine has tended to focus on intervening once diseases have emerged, rather than taking a proactive approach to prevent their occurrence. This reactive approach has led to an increasing burden on healthcare systems, with resources disproportionately allocated to care for established diseases, rather than investing in strategies that could prevent them in the first place.

Although recent times have seen a shift in mindset toward greater attention to patient safety and quality of healthcare services, this transformation has not yet reached its full manifestation. The medical culture and structure of health systems often perpetuate a reactive paradigm, where problem solving is valued over problem prevention. This lack of balance between curative and preventive medicine can result in inefficient use of resources and suboptimal care for the population, especially in terms of public health.

To address this issue effectively, a paradigm shift is needed that prioritizes health promotion and disease prevention in equal measure to cure. This implies not only reforms in clinical practice and health policy, but also a cultural shift in the perception of medicine, where both prevention and cure are valued as equally important components of medical care. Only through such a comprehensive and balanced approach can health challenges be addressed more effectively and ensure better well-being for present and future generations.

The objective is to provide a theoretical basis subsequent to the development of a health promotion strategy in relation to adherence to pharmacological treatment at the León Becerra Hospital in Guayaquil. From a scientific perspective, it has been shown that patients' beliefs and perceptions can significantly influence their adherence to pharmacological treatment. Studies have revealed that erroneous beliefs about medications, such as fears about side effects or lack of confidence in their efficacy, can hinder adherence and compromise health outcomes (Abalo, J. 2016). Therefore, understanding patient beliefs and perceptions provides valuable information to personalize the therapeutic approach and design targeted interventions that address their concerns and promote better adherence to treatment.

In addition, identifying and addressing patient beliefs and perceptions can contribute to a stronger and more collaborative patient/physician relationship. By acknowledging the patient's concerns and doubts about their illness and treatment, health care professionals can establish more effective and empathic communication, which in turn strengthens the patient's trust in their health care team. (Joven, Z., & Guáqueta, S. 2019). This trusting relationship facilitates collaborative shared decision-making and increases the likelihood that the patient will follow treatment as prescribed. Ultimately, addressing patient beliefs and perceptions not only improves treatment adherence, but also promotes optimal health outcomes and greater satisfaction with the medical care received.

The study is of utmost relevance in the healthcare setting for several key reasons. First, understanding patient beliefs and perceptions allows healthcare professionals to personalize treatment more effectively. Each patient has a unique view of their disease and prescribed medications, influenced by a variety of factors such as their education, previous experiences, and cultural beliefs. By addressing these individualized beliefs, physicians can tailor treatment to address the patient's specific concerns, increasing the likelihood of successful adherence and better long-term health outcomes.

In addition, identifying and addressing patient beliefs and perceptions fosters a stronger, more collaborative patient-physician relationship. Open and empathetic communication between the patient and the medical team is essential to establishing a mutually trusting relationship. By showing interest in the patient's concerns and providing clear and understandable information, health care professionals can strengthen this relationship, which in turn improves patient satisfaction and promotes greater cooperation in the management of their disease.

Conducting a study on the use of and adherence to pharmacological treatment in patients with chronic noncommunicable diseases is justified by the need to address a significant and complex public health problem. Chronic noncommunicable diseases represent a considerable burden on health care systems and can have a significant impact on patients' quality of life. Adherence to drug therapy is a critical factor in the effective management of these diseases, and understanding the factors that influence adherence is crucial to improving health outcomes and reducing the burden of chronic diseases. By conducting a study in this area, effective interventions can be identified to improve adherence to treatment, which benefits both individual patients and public health in general by reducing morbidity and mortality associated with chronic diseases.

According to (Mendoza, R., 2021), non-adherence has immediate repercussions that encompass clinical, economic and social aspects, manifesting itself at two levels: first, directly in the patient and his or her family environment, and second, at the level of health systems. Regarding the impact on the patient, the most obvious consequences are of a clinical nature. The severity of these consequences will vary depending on whether or not treatment is initiated upon detection of the disease. Even if treatment is not initiated, what will manifest in the patient's health are the clinical conditions of the disease in its natural state. These conditions, in the long term and depending on the type

of disease, can cause irreversible and even fatal effects due to progressive deterioration. pp. 902-903

According to the author, non-adherence to medical treatment not only has immediate clinical implications, but also generates significant impacts in the economic and social spheres. At the individual level, non-adherence can result in a deterioration of the patient's health and the development of chronic medical conditions or serious complications. This aspect not only affects the individual directly, but can also have an emotional and economic impact on his or her family. Therefore, it is crucial to address nonadherence in a comprehensive manner to mitigate its negative consequences at both the individual and systemic levels.

Regarding the factors that influence poor adherence to pharmacological treatment in older adults with chronic noncommunicable diseases, living in loneliness, not knowing the disease and not being familiar with the name of the medications were identified as relevant (Padilla & Morales, 2020). The factors that influence non-adherence to pharmacological treatment in older adults with chronic diseases are of utmost importance for the design of effective health interventions.

Living in solitude can negatively impact the individual's ability to correctly follow their treatment, due to the lack of social support and supervision. Ignorance of the disease also plays a crucial role, as it limits the patient's understanding of the importance of following the prescribed treatment. Therefore, addressing these factors in a comprehensive manner is critical to improve adherence to treatment and ultimately optimize health outcomes in the older adult population with chronic diseases.

Among the patient-associated elements, the relevance of internal motivators was recognized, in addition to the expectations that patients have regarding treatment outcomes, desiring noticeable and rapid improvements. Regarding factors linked to the health system or the medical team, users expressed having adequately received information about medication dosage, as well as highlighting the ease of access to medical appointments (Trujillo, J. et al., 2016).

The importance of patient- and health system-related factors in treatment adherence is critical to ensure effective outcomes. Motivational aspects and patient expectations play a crucial role in their commitment to treatment, as they influence their perception of the efficacy and expected benefits of medications. On the other hand, adequate information provided by the healthcare system, especially regarding medication dosage, is essential to ensure that patients understand how to take their medications correctly. The terms "compliance" and "adherence" have been used interchangeably to describe the implementation of health and therapeutic recommendations. However, the use of "compliance" suggests passive or active action, which may place the responsibility solely on one of the parties involved, either the patient or the physician/health care provider. In contrast, the term "therapeutic adherence" encompasses a broader range of behaviors, considering the degree to which the patient's actions coincide with the recommendations agreed upon between the healthcare professional and the patient. (Ortega, J. et al. 2018)

Therapeutic adherence, which includes monitoring medication intake, adherence to diets, or implementation of lifestyle changes by the patient, can be compromised by the simultaneous consumption of multiple drugs. One way to assess the extent to which patients follow the indications associated with prescribed treatments is by measuring medication adherence. It has been observed that chronic diseases are particularly affected by low adherence, with estimates suggesting that approximately half of the chronically ill population does not follow the medication regimen as prescribed (Moreno A, et al. 2018).

The author references that, the complexity of following a therapeutic regimen, which includes taking medications, adhering to specific diets, and making lifestyle changes, can be exacerbated by the need to manage multiple medications simultaneously. This situation poses an additional challenge for patients, which can result in reduced adherence to treatment.

Measuring medication adherence thus becomes a crucial tool for assessing how well patients follow the instructions prescribed by their physicians. The severity of this problem is particularly highlighted in the case of chronic diseases, where approximately half of patients do not follow their treatment adequately, underscoring the importance of addressing adherence as a central aspect in the management of these health conditions.

## **MATERIALS AND METHODS**

The research was based on Ecuador's legal regulations and academic literature related to health promotion in terms of adherence to medication treatment in patients with chronic noncommunicable diseases (NCDs) and safety culture as an essential part of health care quality. A diversified methodological approach was adopted, combining field research and description, which facilitated the active participation of the community in all stages of the study (Binda, N. & Balbastre, F. 2013).

Various methods were employed, both theoretical and empirical, including analysis-synthesis, the inductive-deductive approach and the systemic-structural approach, as well as observation, interview, survey and documentary review. This allowed the development of health promotion strategies aimed at improving compliance with drug treatment and fostering a culture of safety among patients with NCDs at the León Becerra Hospital in Guayaquil.

The survey was applied to a sample of patients with chronic non-communicable diseases, aged between 35 and 80 years, with the objective of obtaining a diverse representation of experiences and perspectives, once the data was collected through the Google Forms survey, a results analysis technique was used to examine and understand emerging patterns. This analysis involved tabulating data, calculating descriptive statistics, and interpreting results (Lopez, J. & Herrero, J. 2006). Specifically, the Likert scale was used to measure patients' responses and understand their degree of agreement or disagreement regarding certain statements related to the topic of study.

According to Matas, A. (2018), Likert scales are psychometric measurement tools in

which participants express their degree of agreement or disagreement with a statement, question or utterance, using a graduated and unidimensional scale.

According to the author, the use of Likert scales in research has proven to be an invaluable technique for measuring attitudes, opinions and perceptions in a quantitative and structured manner. By allowing respondents to express their degree of agreement or disagreement with specific statements, these scales provide data that are easy to analyze and compare.

## RESULTS

Following the collection and tabulation of the data derived from the study, an exhaustive documentary search was carried out with the purpose of establishing significant connections between the findings obtained. This documentary search not only facilitated a broader contextualization of the results obtained in the current study, but also made it possible to identify trends, discrepancies and possible areas of convergence between the conclusions reached in the present work.

The results obtained show that a large majority of respondents, 88.3% agree or strongly agree with the importance of taking their medications as prescribed. Only 11.8% expressed disagreement or felt neutral in this regard. This suggests a generalized understanding of the importance of adherence to drug treatment among the participants. Regarding the perception of whether respondents have sufficient information about their disease and the purpose of their treatment, it is observed that almost half, 47.1% exactly agree, while 29.4% feel neutral about it. This indicates that there is a considerable group of participants who could benefit from more education about their condition and treatment.

Regarding concerns about possible side effects of medications, 94.1% of respondents expressed having concerns about this. This finding highlights the importance of addressing and mitigating patients' concerns about side effects to improve adherence to treatment. Regarding fear of taking medications due to information received, it is noted that approximately half of the respondents, exactly 64.7% agree or strongly agree in feeling fear for this reason. This suggests the need to address and clarify erroneous or misunderstood information about medications to reduce patient anxiety.

Regarding concern about treatment efficacy, 88.2% expressed agreement. This highlights the importance of establishing effective communication between patients and healthcare professionals to address these concerns and optimize treatment. Regarding doubts about whether they should continue taking their medications, 58.8% agreed. This underscores the importance of providing ongoing education and support to improve adherence to treatment.

On the desire to receive more information about their treatment and how they can benefit, the majority of respondents, 88.2% agree or strongly agree. This highlights the importance of improving communication between patients and healthcare professionals to meet these informational needs.

In terms of feeling comfortable sharing concerns and questions about treatment with

healthcare professionals, 82.4% of respondents agree or strongly agree. This highlights the importance of establishing a relationship of trust and openness in communication between patients and healthcare providers. The integration of the results of the current study with the relevant academic literature contributed to enriching the overall understanding of the topic and deepening its critical analysis, offering a more complete and informed perspective on the implications and practical applications of the results obtained.

In the study by Chamorro, A. (2024), it was found that most of the participants were between 67 and 70 years old, were female, identified themselves as mestizos, were married, had primary education, were economically dependent on family support and most suffered from hypertension. Aspects that influenced adherence to treatment included economic factors, factors related to the health care system and team, as well as factors related to therapy, in which the majority reported that they never found it difficult to follow their treatment without interruptions. In addition, patient-related factors showed that all agreed on the usefulness of the treatment and took responsibility for taking care of their own health.

In the findings of his research on adherence to pharmacological and non-pharmacological treatment in patients with chronic non-communicable diseases, González, Y. (2014), highlighted that men accounted for 53.7% of the respondents, outnumbering women. Most of the participants belonged to the older adult group, with 43.7% of the sample, and the vast majority resided in socioeconomic strata 1 and 2, with incomes that did not exceed two minimum wages. Regarding family medical history, arterial hypertension was the most commonly reported disease, followed by diabetes. In addition, the most prevalent disease among respondents was hypertension.

In his thesis entitled "Adherence to pharmacological and non-pharmacological treatment in patients with cardiovascular risk factors", Fontal, P. (2014), reports on the level of adherence to pharmacological and non-pharmacological treatment among the research participants. It was observed that 76% of patients are in a favorable situation for adherence, while 14% are at risk of not adhering to treatment, and 9% show no adherence at all.

The search not only provided a broader contextualization of the results of the current study, but also allowed us to identify trends, discrepancies, and possible areas of convergence between the conclusions reached in this work. The integration of the results of the study with the relevant academic literature enriched the overall understanding of the topic and deepened its critical analysis, offering a more complete and informed perspective on the implications and practical applications of the results obtained to be developed in the subsequent discussion.

## DISCUSSION

Analysis of the results revealed that a large majority of respondents agree or strongly agree with the importance of taking their medications as prescribed, suggesting a widespread understanding of the importance of adherence to drug treatment among

participants. However, it was also noted that almost half of the respondents agree that they have sufficient information about their disease and the purpose of their treatment, indicating that there is a sizable group that could benefit from further education about their condition and treatment.

The majority of respondents agree or strongly agree that they would like to receive more information about their treatment and how they can benefit, highlighting the importance of improving communication between patients and healthcare professionals to meet these informational needs. Also, a large percentage of respondents agree or strongly agree that they feel comfortable sharing concerns and questions about treatment with health care professionals, highlighting the importance of establishing a relationship of trust and openness in communication between patients and health care providers.

The study by Chamorro, A. (2024), offers a detailed view of the factors that influence adherence to treatment in patients with hypertension, highlighting the importance of considering economic aspects, related to the health care system, and the patient's attitude and responsibility. These findings highlight the complexity of treatment adherence and underscore the need to address multiple variables to promote better disease management and more positive health outcomes.

The results obtained by Gonzalez, Y. (2014), shed light on the challenges faced by patients with chronic noncommunicable diseases in terms of treatment adherence. The fact that most of the participants are older adults and belong to low socioeconomic strata suggests that they may face additional barriers, such as economic constraints and limited access to health care resources. Furthermore, the prevalence of diseases such as arterial hypertension among family medical history and hypertension among respondents highlights the importance of addressing these diseases effectively to improve public health and the quality of life of the population.

The study by Fontal, P. (2014), provides a clear assessment of the level of adherence to pharmacological and non-pharmacological treatment in patients with cardiovascular risk factors. The results reveal that most patients are in a favorable situation for adherence, suggesting adequate compliance with the prescribed treatment. However, it is of concern to identify that a significant percentage of patients are at risk of nonadherence to treatment, highlighting the need to implement interventions to improve adherence and prevent possible cardiovascular complications. These findings underscore the importance of addressing factors that influence adherence to treatment to ensure the effectiveness of medical interventions and improve health outcomes for patients with cardiovascular risk factors.

Possible directions for future studies include more detailed investigations of effective strategies to address patients' concerns about medication side effects and anxiety associated with taking medications. In addition, it would be relevant to examine how disease- and treatment-specific education may influence patients' perceptions of treatment efficacy and disposition. These lines of research can contribute significantly to improving the medical care and quality of life of patients with chronic diseases.

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