



Determinants of health and therapeutic non-adherence in patients with chronic diseases: a review

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ABSTRACT

Chronic diseases today represent a real public health problem that, over time, despite all the prevention measures, interventions by health personnel, pharmacological treatments and changes in people's lifestyle, adherence to treatment continues as a therapeutic obstacle. The Determinants of Health allow us to understand the factors, consequences, and possible strategies to achieve adequate promotion, prevention and adherence to treatment of these diseases. **Objective:** To determine the correlation between the determinants of health and the lack of therapeutic adherence in the treatment of patients with chronic diseases.

Methodology: A systematic review was carried out on the Internet, in the search engines Crossref Metadata Search, PubMed, and Redalyc, based on the following keywords: Determinants of Health, Therapeutic Adherence and Chronic Diseases. The search criteria were indexed articles with the theme of Health Determinants, Therapeutic Adherence, Hypertension, Diabetes, Obesity, Kidney Disease, Respiratory Disease and Cancer. **Results:** Lack of adherence is unintentional, it is due to lack of knowledge regarding treatment, lack of communication with the doctor, credibility due to the type of disease, lack of motivation to start treatment, lifestyle, socioeconomic implications, among other factors. **Conclusion:** Health personnel must share treatment instructions more clearly through assertive communication, as well as co-responsibility to improve lifestyles and socioeconomic status.

Keywords: therapeutic adherence, health determinants, chronic diseases

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Introduction

Determinants of health

According to the WHO, health determinants are defined as "the circumstances in which people are born, grow, work, live and age, including the broader set of forces and systems that influence the conditions of daily life". They directly influence the quality of life of people and it is of utmost importance to know them in order to prevent the onset of diseases, as well as to promote different alternatives to improve lifestyles¹ and generate a sense of responsibility and self-care among one or more population groups.

Chronic Diseases and Therapeutic Adherence

Currently, Chronic Diseases present a higher risk for the population. Some of the most common are: Diabetes, Obesity, Hypertension, Renal Disease, Respiratory Tract Disease and Cancer. At this point, it is important to mention the relationship between the different behaviors that may be present in people's lifestyles and that can trigger these diseases.²

In the Thesis entitled "Therapeutic adherence and chronic diseases. A clinical problem" represent a danger for those who suffer from them directly and for their families, having to modify their lifestyle, due to the great burden and economic impact they represent, we can see this reflected in the different social classes.

In order to satisfactorily comply with the long-term treatment of these diseases, it is necessary to have an adequate therapeutic adherence to the treatment. For those patients who require a longer follow-up, whose disease needs a control and management that can last for years or during their whole life, pharmacological and non-pharmacological treatment is indispensable, in addition to a responsible self-care.²

The concept of therapeutic adherence, defined by the WHO, tells us that it is "the degree to which a person's behavior, taking medication, following a dietary regimen, and implementing lifestyle changes, corresponds to the recommendations agreed upon with a healthcare provider"². Despite this, there are different causes for which the patient during treatment can generate some type of non-compliance and therefore be

affected. When patients do not follow this regimen, the likelihood of achieving the desired therapeutic effects is often delayed and less effective².

Some Determinants of Health that may be involved in the lack of therapeutic adherence are as follows:^{2,3}.

Socioeconomic factors: Lack of income implies less access to pharmacological therapies, including medicines, as well as the difficulty in obtaining consultations for medical check-ups. This factor can lead people to prioritize the need to buy medicines or their basic needs.

Psychological Factors: The patient's opinion about the efficiency of the drug, as well as possible adverse reactions, are of major importance for compliance. Some mental health problems, such as anxiety or depression, also affect the patient's progress.

Doctor-Patient Relationship: Communication between health personnel and patient, generate a better understanding, in this way possible misunderstandings and situations where therapeutic adherence is compromised and therefore diminished can be avoided.

Public Health Factors: Includes that people have the right and access to different health services, adequate patient education to improve their disease and support programs or networks to increase therapeutic adherence.

Environmental Factors: The environment surrounding the patient, the communication between people and the spaces where they can develop activities that benefit their health, can impact and increase adherence.

Individual Characteristics: Age, gender, beliefs, education and socioeconomic status are among the most important determinants of whether or not a patient can adhere to treatment adherence.

All these determinants are reflected and interact in a complex and varied manner in each individual, whether they improve or affect the patient recurrently. Lack of adherence to pharmacological treatment in this type of disease can have major consequences, have repercussions on the health of the patient and trigger complications ranging from hospitalization to death of the patient^{2,4}.

Arterial Hypertension

Nowadays, Arterial Hypertension represents a serious health problem in different sectors of the population, which with the passage of time tends to be more recurrent, this disease has a wide pharmacological treatment, and it is usually safe, effective, and in different cases economically accessible, however, of the total number of patients who suffer from it, not all of them comply correctly⁵.

Some of that patients with this disease abandon treatment before the first results, and some others even decrease the frequency of taking the drugs until the therapy becomes ineffective⁵.

There are different factors that are related to the lack of therapeutic adherence, and therefore to noncompliance with treatment in patients with hypertension, among them are the following:

a) Lack of knowledge of the disease: not knowing the function of the drugs and treatment increases the probability of lower adherence³⁻⁴.

b) Socioeconomic factors: sex⁵, age⁵ and low economic income^{2,4,6}. The reasons why patients did not adhere correctly to treatment were: first, lack of confidence in the physician's indications, which can be caused if the patient does not fully understand the functions of the drugs and there is a constant lack of communication; the appearance of possible adverse reactions to the drug, and third, ineffectiveness⁵.

The objectives remain clear, to increase knowledge about hypertensive disease and with this achieve a favorable evolution in patients within their treatment to achieve the best possible results and proper adherence to their therapy, as well as to avoid the appearance of other diseases arising from the complications of this, such as heart disease that can further compromise the quality and life expectancy of the patient.

Obesity

Obesity is a chronic disease that has become an important issue for public health due to the type of risk it represents. Some of the main causes of this epidemic are the lack of healthy lifestyles which, in turn, involve different behaviors such as poor diet and lack of physical activity during the day⁷. so it is important to focus on solving and changing these problems to reduce the risk of suffering from it and prevent it in time⁷.

For the management of this disease, it starts with a non-pharmacological treatment that involves lifestyle changes of the patient, as well as implementing sufficient sources of information for more knowledge, however, we must also take into account that there are other diseases that are derived as a result of obesity, some of them are diabetes, different types of cancer such as kidney and colon, hypertension, and some sleep disorders⁷.

Despite the different causes and factors by which this problem may be increasing, it is necessary to know individually the main barriers of people with this disease, taking into account their environment and lifestyle. Therefore, in his article "*Motivation and limiting factors for adherence to weight loss. Interventions in patients with obesity in Primary Care*" highlights through an analysis of 209 patients, where 88 are men, and 121 women the following⁸:

About 67.5% of the patients, the main reason is due to lack of motivation and avoidance of any support network, and 20.5% do not believe it is necessary to lose weight, however, there are those who report having followed a diet at the time the disease was diagnosed, which includes 22.4% of the patients⁸.

Patients also mention other individual factors such as, for example, among the difficulties they have to comply with a good diet, are: 1) Tired of always having the same diet 2) Patients do not want to stop eating what they like 3) Not being able to have a variety on their menu 4) Lack of economic income that may include acquiring different foods among others⁸ For not doing any physical activity: 1) Laziness 2) Not having enough time 3) Only exercising when the weather is good 4) Having some other illness that prevents them from fully engaging in physical activity. The patients' moods are also those that allow or prevent weight loss to be constant or slow⁸.

In order to intervene in the lifestyle of these patients, intervention programs are one of the most common alternatives, even though they are mostly inattentive and may cause ineffectiveness of the treatment, it is necessary to implement education and promotion of this form of assistance⁹.

Diabetes

Diabetes is a disease that represents a total concern among the world's population since it constantly affects millions of people and interferes with their health and well-being, since it not only has biological repercussions, but also changes the patient's development and quality of life.¹⁰. Therefore, the diabetic patient must take measures to change their daily habits, from eating a healthy diet, maintaining a constant physical activity, and above all, an adequate monitoring of their disease that includes follow-ups with the doctor, laboratory control tests, and maintaining an adequate blood glucose level¹⁰.

There are 2 classifications of this disease, type 1 Diabetes and type 2 Diabetes, where type 2 Diabetes is the one that usually affects more people, mainly people over 20 years old, representing a total of 14.4%¹¹.

Type 2 Diabetes

Type 2 Diabetes is a disease whose main factor is the increase in blood glucose levels and that besides being one of the most common chronic diseases in the population, it is expected to increase by about 10.4% by the year 2040¹¹. Even taking into account the number of people suffering from this disease, the lack of control is due to the insufficient knowledge on the part of the patients and above all the poor management of information about the treatments, which generates distrust and therefore a lack of pharmacological adherence. This can be reflected in figures which show that between 30% and 70% of patients with DM2 do not adequately comply with the indications of their treatment for the reasons mentioned above¹¹.

In many studies^{10,11} research has been done with different patients suffering from this disease and one of the main causes is the non-adherence to the treatment due to the lack of knowledge they present^{10,11}. Guaman A, mentions that this factor is the one that requires the most attention since, in addition to this, other factors such as sociodemographic and, above all, how the person is going to carry out his treatment and whether he is going to do it correctly.

Patient education is a key factor in achieving the correct adherence to treatment, since it also requires changes that can have a positive impact on the patient's lifestyle and that can be correctly incorporated into his or her routine¹⁰.

In The study *"Factors influencing adherence to treatment of diabetes mellitus"* patients in an age range over 50 years showed to have less knowledge about the disease and its treatment, the increase in age can generate a lack of adherence "unintentional" where the patient does not comply with treatment either by forgetting to take their medications, if we take into account the advanced age of patients who present a risk of suffering from memory problems and therefore this is increasing over time¹⁰.

Ultimately, the economic factor is related to this lack of adherence, due to the difficulty of acquiring the necessary medications or the control measures that must be taken during treatment¹⁰. People with low economic resources come from rural areas and often their living conditions make it difficult for them to have support networks to help them control their disease, such as glucose measurement studies and follow-up, which makes it difficult for patients to adhere to therapy and this way prevent non-compliance¹⁰, in addition, in these cases, the lack of resources and adherence may lead the patient to try other alternatives for the control of their disease as described by in the study *"Lack of adherence to pharmacological treatment and associated factors in Mexican patients with type 2 diabetes mellitus"* in which, those patients who did not follow any type of adherence,

resorted to treatments with medicinal plants, multivitamins, among others that could eventually develop complications to their health¹¹, therefore, it is important to understand that the more the patient knows about his disease, the better he will be able to manage his disease compliance and achieve good therapeutic adherence¹⁰.

Chronic Kidney Disease

Chronic kidney disease is nowadays considered a global health problem, since it presents, in addition to different complications to the patient, a high mortality rate, and a costly demand in the economic factor¹². This disease is also considered one of the main causes for which medical attention is required in health services such as emergency, consultation with the doctor or specialist, and above all, hospitalization^{13,14}. This problem is considered a severe one, since only half of the patients with this disease have received any help or treatment, and the rest had no control at all¹⁴.

It has been determined that some of the main causes of Chronic Kidney Disease are due to complications in conditions such as Hypertension or Diabetes in cases where either of these two diseases has developed progressively and with complications over a period of time¹². The patient with this disease is treated with replacement therapies including dialysis and hemodialysis¹⁴. To talk about the lack of adherence to treatment, it is first important to mention that one of the most difficult obstacles that patients have to go through is the emotional shock at the moment of receiving the news¹². The article mentions that the patient presents two moments that have an impact and affect them psychologically and cause grief, the first one he mentions is when they receive the news of their disease and feel loss of their well-being due to the failure of an important organ, in this case the kidney, in addition to the different discomforts that the disease brings and affects the patient and the second in having to change their entire lifestyle to start treatment.^{12,14}

Several studies have determined that the main reason as to why patients do not adhere correctly is due to behaviors that tend to cause anxiety^{12,13,14}, in most cases, patients refuse to accept the problem even more knowing that their life is at risk.¹⁴. Generally, as their disease progresses patients begin to experience negative feelings such as hopelessness, anger and their levels of socialization become lower and lower¹⁴.

Other difficulties in adherence is the lack of financial resources, given that the duration of the treatment is long term, patients stop taking their medication or feel they are in denial when they go to their therapies.¹⁴. Also mentions that patients stop attending their consultations and do not acquire the necessary medication due to its high cost, and the treatment remains incomplete¹³.

The relationship that the patient has with the health professionals is also important in the compliance or therapeutic adherence, patients in different circumstances are forced to spend most of their illness receiving their therapies, being able to provide support and the feeling of accompaniment, impacts them positively and will be motivated to continue with their treatment¹⁵.

Relationship with the family can also be involved in whether or not the patient is motivated to continue with the treatment, since they also have to face the disease and the deterioration of the person with this disease, they can often present emotional shock and like the patients, at the beginning it is difficult for them to accept the disease and modify their lifestyle, as well as to become aware that this treatment will not make the disease

disappear, but only allow the patient to carry this process in a less difficult way, physically and emotionally¹⁴.

Adherence to pharmacological and non-pharmacological treatment in the patient will always depend on the environment in which he/she is surrounded, providing the necessary resources and help from the diagnosis of the disease, and providing adequate care, the accompaniment will be better and the patient will be able to develop habits that allow them to prolong their quality of life by reducing the different risks that the disease entails¹³.

Chronic Obstructive Pulmonary Disease:

Chronic Obstructive Pulmonary Disease (COPD), is considered one of the leading causes of death around the world, the treatment and beliefs that patients have about the disease are one of the factors that require more attention as they can lead the patient to comply or not to comply with adequate therapeutic adherence¹⁶. The correct management of medications, such as bronchodilators or inhaled corticosteroids.¹⁶

The article mentions that in most cases, patients determine that the decision making regarding their treatment has to do with whether they really need a medication is what becomes the main cause of the lack of therapeutic adherence.¹⁶ Low adherence to treatment has been associated with poor symptom control, this generates temporary or permanent complications in the therapeutic effect.¹⁶

He also mentions that another common factor in the lack of adherence is due to the patients lack of information about the consequences of not taking long term treatment. Depression and emotions of anguish or negativity also represent in most patients an important barrier to not taking care of themselves and achieving the expected results.¹⁶

Interventions by healthcare organizations, informative talks about their treatment and the involvement of professionals such as pharmacist who are experts in medications are some of the proposals that can be considered to offer and change the therapeutic adherence.¹⁷

Early prevention methods for this disease will be important not only to reinforce, but also to raise patient's awareness of medication and proper adherence to their medications¹⁷.

Cancer:

Cancer is a disease that threatens and changes the lifestyle of people who suffer from it, in addition to the symptoms and deterioration that the process of chemotherapies and long term treatment entails. The main causes for not obtaining important results include the different complications during treatment,

psychosocial reasons and can greatly reduce the quality of life of the sick patient and the increase of possible adverse reactions¹⁸.

Failure to comply with the chemotherapy treatment has negative consequences such as a decrease in the effectiveness of the treatment, long-term progression of the disease, and the appearance and worsening of symptoms¹⁸.

The study determine to psychological factors such as anxiety and depression, one of the biggest problems in the lack of adherence, demotivation of the patient and the thought of representing for the family a burden, generates a degree of dissatisfaction to the patient and little desire to continue with the therapy¹⁹.

The lack of acceptance of the disease by the patient, and being able to adapt to a new lifestyle, as well as the disinformation about the treatment, they make the treatment process difficult and therefore, a significant lack of adherence¹⁸⁻¹⁹.

Therefore, it is necessary to pay more attention to the different reasons why the patient does not comply with the treatment, not only economic issues, but also those that affect their state of mind, and in which it is necessary to modify the environment in which they find themselves¹⁸⁻¹⁹.

General Objective: Determine the correlation between the determinants of health and the lack of therapeutic adherence in the treatment of patients with chronic diseases.

Research question

Is there a correlation between the determinants of health and the lack of therapeutic adherence in the treatment of patients with chronic diseases?

Methodology

A systematic review was carried out on the Internet, in the search engines Crossref, Metadata Search, PubMed, and Redalyc, based on the following keywords: Determinants of Health, Therapeutic Adherence, and Chronic Diseases. The search criteria were indexed articles, with the topic of Health Determinants, Therapeutic Adherence, Hypertension, Diabetes, Obesity, Renal Disease, Respiratory Disease, and Cancer.

Results

Non-adherence is unintentional, due to lack of knowledge about the treatment, lack of communication with the physician, credibility due to the type of disease, lack of motivation to initiate treatment, lifestyle, socioeconomic implications, among other factors (Table 1).

Table 1: Correlation between health determinants and chronic illness

Illness	Operational definition	Correlation Yes/No	References
Arterial Hypertension	It is a disorder in which the blood vessels have elevated blood pressure.	YES	Świątoniowska-Lonc N, Polański J, Tański W, Jankowska-Polańska B. Impact of satisfaction with physician-patient communication on self-care and adherence in patients with hypertension: cross-sectional study. BMC Health Serv Res [Internet]. 2020;20(1):1046 doi: https://doi.org/10.1186/s12913-020-05912-0 Mendoza Reyes R. La adherencia terapéutica en pacientes con enfermedades crónicas no transmisibles: diabetes, hipertensión y obesidad. Med Etica [Internet]. 2021 [citado el 19 de junio de 2025];32(4):897-945. doi: https://doi.org/10.36105/mye.2021v32n4.01
Obesity	Abnormal and excess fat accumulation.	YES	Trujillo-Garrido, N. & Santi-Cano, M.J. Motivation and Limiting Factors for Adherence to Weight Loss Intervenciones among Patients with Obesity in Primary Care. Nutrients [Internet]. 2022 Jul 17 [citado el 26 de Junio del 2024];14(14):2928-8. doi: https://doi.org/10.3390/nu14142928
Diabetes	A disease characterized by elevated levels of glucose in the blood.	YES	Guamán-Montero, N., Mesa-Cano, I., Peña-Cordero, S. & Ramírez-Coronel, A. Resumen Abstract al tratamiento de la diabetes mellitus II. AVFT [Internet]. 2021 [citado el 26 de Junio del 2024]; 40 (3). doi: https://doi.org/10.5281/zenodo.5039487

Kidney Disease	Loss of renal function	YES	Ceballos, A., Giron, D., Paz, M.A. & Ante, J.D. Adherencia al tratamiento no farmacológico en pacientes con enfermedad renal crónica. <i>avft</i> [Internet]. 2020 [citado el 27 de Junio del 2024];39(4):485–90. . doi: https://doi.org/10.5281/zenodo.4092559
Chronic Obstructive Pulmonary Disease	Reduced airflow in the lungs making breathing difficult.	YES	Reyes M., Salas N., et al. Adherencia al tratamiento inhalatorio en pacientes con asma o EPOC en un establecimiento de atención primaria de salud. <i>Scielo.cl</i> . [citado el 19 de junio de 2025]. doi: http://dx.doi.org/10.4067/s0717-73482025000100020 Moradkhani B, Mollazadeh S, Niloofar P, Bashiri A, Oghazian MB. Association between medication adherence and health-related quality of life in patients with chronic obstructive pulmonary disease. <i>J Pharm Health Care Sci</i> [Internet]. 2021;7(1):40. doi: https://doi.org/10.1186/s40780-021-00222-x
Cancer	A disease that can arise in any organ or tissue due to abnormal cell growth.	YES	Ester D. Revisión sistemática sobre la intervención del psicólogo en el abordaje de los pacientes con cáncer. <i>CdVS</i> [Internet]. 27 de diciembre de 2023 [citado 20 de junio de 2025];16(2):81-101. URL: https://revistacdvs.uflo.edu.ar/index.php/CdVUFLO/article/view/392 Antoni M.H, Moreno P.I, Penedo F.J. Stress management interventions to facilitate psychological and physiological adaptation and optimal health outcomes in cancer patients and survivors. <i>Annu Rev Psychol</i> [Internet]. 2023;74(1):423–55. doi: https://doi.org/10.1146/annurev-psych-030122-124119

Adherence to treatment follows health determinants such as lifestyles, including habits, diet and socioeconomic status, poor knowledge of the disease, the role of medications, schooling-education, and the doctor-patient relationship, but it is important to have access to medications because of their high cost. This shows that the determinants of health condition on the one hand the appearance of the disease(s) and adherence to treatment (Table 2).

Table 2. Determinants of health and adherence to chronic disease treatment

Health Determinants	Operational Definition	Adherence Yes/No	Reference
Structural and societal	Those that strengthen the stratification of a society by defining the social and economic position of individuals.	Conditioned	Diaz, V. La adherencia terapéutica y las enfermedades crónicas. Un problema clínico [Internet]. <i>Revistasmedicas.org</i> . [citado el 20 de junio de 2025]. doi: https://doi.org/10.37980/im.journal.rspp.20211786 Pocohuanca-Ancco, L, Villacorta, J. & Hurtado-Roca Y. Factores asociados a la no-adherencia al tratamiento farmacológico antihipertensivo en pacientes de un hospital del seguro social. <i>RCMHNAAA</i> [Internet]. 2021 Dic 14 [citado el 26 de Junio del 2024];14(3):316–21. doi: https://doi.org/10.35434/rcmhnaaa.2021.143.1252 Świątoniowska-Lonc N, Polański J, Tański W, Jankowska-Polańska B. Impact of satisfaction with physician-patient communication on self-care and adherence in patients with hypertension: cross-sectional study. <i>BMC Health Serv Res</i> [Internet]. 2020;20(1):1046. doi: https://doi.org/10.1186/s12913-020-05912-0
Circunstancias materiales	Quality of housing, consumption possibilities, physical working environment, etc.	Conditioned	Pocohuanca-Ancco, L, Villacorta, J. & Hurtado-Roca, Y. Factores asociados a la no-adherencia al tratamiento farmacológico antihipertensivo en pacientes de un hospital del seguro social. <i>RCMHNAAA</i> [Internet]. 2021 Dic 14 [citado el 26 de Junio del 2024];14(3):316–21. doi: https://doi.org/10.35434/rcmhnaaa.2021.143.1252 Trujillo-Garrido, N. & Santi-Cano, M.J. Motivation and Limiting Factors for Adherence to Weight Loss Interventions among Patients with Obesity in Primary Care. <i>Nutrients</i> [Internet]. 2022 Jul 17 [citado el 26 de Junio del 2024];14(14):2928–8. doi: https://doi.org/10.3390/nu14142928
Circunstancias psicosociales	Psychosocial stress factors, life circumstances, support and social networks	Conditioned	Soffa I. Mejoramiento de la calidad de vida en pacientes con enfermedad renal terminal, basado en su adherencia al tratamiento sustitutivo renal/hemodiálisis. <i>Revista U-Mores</i> [Internet]. 2022 Mar 10 [citado el 26 de Junio del 2024];1(1):11–26. doi: https://doi.org/10.35290/ru.v1n1.2022.556 Ocotlán Méndez-Ortega, I.A., Hernández-Vicente, A.C., Lumbreras-Delgado I & Banderas A. Adherencia al tratamiento farmacológico y no farmacológico de pacientes con enfermedad renal crónica. <i>Horizonte sanitario</i> [Internet]. 2023 Sep 19 [citado el 26 de Junio del 2024];22(3):497–505. doi: https://doi.org/10.19136/hs.a22n3.5588 Moradkhani B, Mollazadeh S, Niloofar P, Bashiri A, Oghazian MB. Association between medication adherence and health-related quality of life in patients with chronic obstructive pulmonary disease. <i>J Pharm Health Care Sci</i> [Internet]. 2021;7(1):40. doi: https://doi.org/10.1186/s40780-021-00222-x Ester D. Revisión sistemática sobre la intervención del psicólogo en el abordaje de los pacientes con cáncer. <i>CdVS</i> [Internet]. 27 de diciembre de 2023 [citado 20 de junio de 2025];16(2):81-101. URL: https://revistacdvs.uflo.edu.ar/index.php/CdVUFLO/article/view/392 Antoni M.H, Moreno P.I, Penedo F.J. Stress management interventions to facilitate psychological and physiological adaptation and optimal health outcomes in cancer patients and survivors. <i>Annu Rev Psychol</i> [Internet]. 2023;74(1):423–55. doi: https://doi.org/10.1146/annurev-psych-030122-124119
Conductual and biological factors	Nutrition, physical activity, food intake, alcohol, tobacco and drugs.	Conditioned	Trujillo-Garrido, N. & Santi-Cano, M.J. Motivation and Limiting Factors for Adherence to Weight Loss Interventions among Patients with Obesity in Primary Care. <i>Nutrients</i> [Internet]. 2022 Jul 17 [citado el 26 de Junio del 2024];14(14):2928–8. doi: https://doi.org/10.3390/nu14142928 Guamán-Montero, N., Mesa-Cano, I., Peña-Cordero, S. & Ramírez-Coronel, A. Resumen Abstract al tratamiento de la diabetes mellitus II. <i>AVFT</i> [Internet]. 2021 [citado el 26 de Junio del 2024]; 40 (3). doi: https://doi.org/10.5281/zenodo.5039487

Social cohesion	Existence of mutual trust, respect among various groups and sectors of society, the way people value their health.	Conditioned	<p>Trujillo-Garrido, N. & Santi-Cano, M.J. Motivation and Limiting Factors for Adherence to Weight Loss Interventions among Patients with Obesity in Primary Care. <i>Nutrients</i> [Internet]. 2022 Jul 17 [citado el 26 de Junio del 2024];14(14):2928–8.doi: https://doi.org/10.3390/nu14142928</p> <p>Guamán-Montero, N., Mesa-Cano, I., Peña-Cordero, S. & Ramírez-Coronel, A. Resumen Abstract al tratamiento de la diabetes mellitus II. <i>AVFT</i> [Internet]. 2021 [citado el 26 de Junio del 2024]; 40 (3). doi: https://doi.org/10.5281/zenodo.5039487</p> <p>Briones, A., Wong, L.I., Flores, D.M., Guzmán, M., Castellanos M. & Albavera, C. Falta de adherencia al tratamiento farmacológico y factores asociados en pacientes mexicanos con diabetes mellitus tipo 2. <i>Rev med de Chile</i> [Internet]. 2022 Ago 1 [citado el 26 de Junio del 2024];150(8):985–93. doi: http://dx.doi.org/10.4067/S0034-98872022000800985</p>
Healthcare system	Exposición/vulnerabilidad a los factores de riesgo, acceso a servicios y programas de salud para disminuir	Conditioned	<p>Trujillo-Garrido, N. & Santi-Cano, M.J. Motivation and Limiting Factors for Adherence to Weight Loss Interventions among Patients with Obesity in Primary Care. <i>Nutrients</i> [Internet]. 2022 Jul 17 [citado el 26 de Junio del 2024];14(14):2928–8.doi: https://doi.org/10.3390/nu14142928</p> <p>Guamán-Montero, N., Mesa-Cano, I., Peña-Cordero, S. & Ramírez-Coronel, A. Resumen Abstract al tratamiento de la diabetes mellitus II. <i>AVFT</i> [Internet]. 2021 [citado el 26 de Junio del 2024]; 40 (3). doi: https://doi.org/10.5281/zenodo.5039487</p>

Discussion

Health determinants are defined as “the circumstances in which people are born, grow, work, live and age, including the broader set of forces and systems that influence the conditions of everyday life” these are related to the living conditions of people, their environment, among other things. Chronic diseases, have an impact not only on the sufferer, but also on those around them, in such a way that, by modifying their lifestyle, it also represents an economic problem by not having sufficient resources to carry a therapy in a constant and adequate manner².

In arterial hypertension, having little knowledge about the disease and not knowing about the treatment is also due to the poor relationship between the doctor-patient, which is the main factor that leads to non-adherence and thus non-compliance with the treatment of the disease^{3,4}.

Obesity is considered a public health epidemic interrelated with other chronic diseases, among the problems that stand out the most, is the lack of motivation to perform physical activity, it is required to intervene in the lifestyle of these people even if there are limitations like the lack of medical attention, making necessary the education and promotion of health in people⁸.

One of the most important factors regarding patients with type 2 diabetes mellitus lies in the lack of information about the disease, in confusing information about it, and in the lack of information about the disease^{10,11}. In addition, age and the economic factor denote a lack of adherence to treatment¹⁰. Not accepting that one has a chronic disease such as renal insufficiency, among others of greater importance and severity, is a fundamental part of not initiating adequate treatment or not complying with it^{13,14,15}, moreover, the doctor-patient relationship, where the former motivates and informs the patient about his disease, as well as the environment in which the patient lives, determine the follow-up of a pharmacological or non-pharmacological treatment^{13,14,15}. Health Determinants such as lifestyle habits and psychological factors are directly linked to the development of chronic diseases, such as COPD, cancer and the aforementioned diseases^{17,18,19}.

Among the determinants of health, lifestyles are the ones in which less is invested, more is invested in what concerns the health system, this means that primary health care is executed very partially in Mexico, our country, the health business is in a system where the professional culture of the curative predominates, not in a health system based on the culture of prevention in public health, in our country the devastated health system leaves much to be desired and it seems then that under these conditions of the health system, the determinants of

health have taken advantage and have had a strong impact on the lack of treatment for chronic diseases, despite the socioeconomic conditions for access to medicines and other determinants of health that undoubtedly lead to non-adherence to treatment, mortality due to lack of treatment, but also death due to lack of access to pharmacological treatments even in children and especially in older adults.

Conclusions

Health personnel have to share treatment instructions more clearly through assertive communication, as well as co-responsibility for improving lifestyles and socioeconomic status, the latter based on the work that the government will have to carry out, since, particularly in Mexico, the mini-health system(s) are disadvantaged for people with vulnerable socioeconomic status. The determinants of health are correlated or interact with the development of chronic diseases and with the ineffectiveness of therapeutic adherence to the treatment required by people with chronic diseases. Among the determinants of health, lifestyles, which are the least invested in, are those that have the greatest impact on public health, the type of education that is carried out with regard to the doctor-patient relationship and the motivation to continue with pharmacological therapeutic treatment is seen with difficulties for adherence to it.

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Author contributions

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JRV. Supervisión, Resources, Writing – original draft, Software

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