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RESEARCH ARTICLE

Pain and Discomfort: An Ethnographic Study of Pharmacological, Traditional and Complementary Medicine, (TCM) and Self-Care Models in Quito, Ecuador

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ABSTRACT

The research is framed within the recognition of three contemporary models that modern citizens intermittently turn to when facing the challenges of pain and discomfort: the biomedical model based on medicalization and the use of pharmaceuticals; traditional and complementary medicine (TCM) based on local-indigenous knowledge and the use of plants and natural compounds; the self-care model that combines elements of the first two and adds personal practices. The article presents the results of ethnographies in 265 households in Quito conducted between 2022 and 2023, addressing the questions: What were the main pharmaceuticals in the households? What were the meanings, values, and uses of industrial drugs in the households? Pharmaceuticals kept at home were inventoried, and elements of TCM were also found, demonstrating the combination of models in everyday life. The most striking pharmacological findings were the high concentration and storage in domestic spaces (drawers, countertops, showcases, rooms, bathrooms, among others) of analgesics, gastrointestinal medicines, antibiotics, supplements, and vitamins, and antiallergics. The anthropological meanings of medicinal compounds revolved around safety, trust, and the ease of purchase, use, and access in the household landscape. In pharmacological terms, the study demonstrates the active role of the medicalizing model that positions industrial pharmaceuticals as immediate responses structured around a population's *habitus* that normalizes their use and consumption. The research allows for a reconsideration of collective health and its contemporary challenges as a multiple, rational phenomenon, with characteristics of therapeutic hybridization and medical plurality.

1. Introduction

The challenges of health, illness, and care are present every day, as an integral part of the routine of homes and families around the world ⁽¹⁻³⁾. In modern times, health is marked by unequal access to living conditions and well-being, as well as by the absence of democratized health services, which is what Breilh ⁽⁴⁾ and others refer to as social determinants of health/disease.

Health/disease faces the management of both old diseases (chronic non-communicable, chronic communicable) ⁽⁵⁾ and new diseases, such as the case of COVID-19 caused by SARS-COV2, which has marked recent contemporary world history with the pandemic and syndemic of 2020 ⁽⁶⁾.

Within the framework of the quest for good health, the modern industrial system, marked by the emergence of biomedically-oriented medical sciences, is characterized by the aspiration for, sometimes leading to the obsession with, an idealized and perfect health associated with hygienic and healthy lifestyles ^(7,8,9). This quest entails the conversion of industrial health care into a pathogenic dimension in and of itself, which is expressed through medicalization and its various manifestations, among other elements ⁽⁸⁾.

In terms of care, there are three clearly identified models that interact and surface as options for patients in the face of pain, discomfort, and illness: 1. the Hegemonic Medical Model or Biomedical System; 2. Traditional and Complementary Medicine (TCM); and 3. the various faces of Self-Care ⁽¹⁾.

Although the three models coexist, the domination of the biomedical one is clear: acting through instances such as the hospital, the doctor, technology, healthy moral discourse, and industrial pharmaceuticals. This condition of power and authority is a constant that has been reported by Menéndez ⁽²⁾, Martínez-Hernández ⁽¹⁰⁾, Ember ⁽¹¹⁾ Illich ⁽⁸⁾, among others. The biomedical model has also been named the *Hegemonic Medical Model* (HMM), facilitator and generator of high pharmacolization in response to pathologies (disease) and their ailments (illness); these last two categories according to Miller's definition ⁽¹²⁾.

Medicalization in its pharmacological expression is a Latin American reality associated with daily life and the habits that structure social order. Bourdieu ⁽¹³⁾ defines *habitus* as a set of socially acquired dispositions through family, school, and other institutions, which correspond to daily behaviors

similar to those of other members of their social group.

For this text, we will call *self-care habitus* the behaviors that structure a conscious and unconscious social order in daily life. The *habit of self-care* constitutes a pattern that is nourished by both biomedical elements (pharmaceuticals) and elements of traditional and complementary medicines (plants, herbs, natural compositions). Beyond *self-care habitus*, there is little systematic research on the use, access, control, meaning, and implication that commercial pharmacological products have in Latin American and Ecuadorian homes.

This research, carried out in 265 homes of university students, sought to answer the following questions: What are the main pharmaceuticals available in homes? What is the significance, value, and use of industrial drugs in homes? The objectives were: to create an inventory of existing pharmaceuticals in homes, to describe and analyze the significance that pharmaceuticals have, acquire, and generate in homes, and to interpret the quantitative and ethnographic information based on an anthropological definition of industrial drugs ⁽¹⁴⁾.

The research is part of contemporary studies of critical medical anthropology and is developed through medical ethnography with the goal of bringing patients, doctors, users and service providers, consumers and markets closer together.

2. Theoretical Framework

MEDICALIZATION AND MODERNITY

Medicalization consists of interpretation, care, and therapy through various biomedical practices: attendance at consultations, diagnosis, control, and surveillance from doctors to patients, as well as submission to biotechnological examinations and use of drugs ⁽⁷⁾.

Medicalization is unmistakably manifested in the widespread use, access, and trust in the organic and symbolic efficiency of modern industrial drugs, following the classic definition of Lévi-Strauss ⁽¹⁵⁾. These pharmaceuticals, products of biological-synthetic origin prepared under Fordian matrices, aim to provide relief, treatment, and cure for the ailments of both men and women in the contemporary world system ^(7,8,16,17).

In the context of this research, the anthropological definition of pharmaceuticals, developed by the author during formal courses and research in the

field of Medical Anthropology, where he has held a full professorship since 2015, is crucial:

Anthropologically, pharmaceuticals are industrial compounds based on plants, animals, and/or minerals, representing experiments typical of the Biomedical paradigm. In addition to possessing active biochemical properties, these drugs acquire symbolic, cultural, emotional, identity, and practical values for both doctors and patients, depending on their specific social contexts ⁽¹⁴⁾.

MEDICALIZATION AND MODERNITY: TOWARDS PHARMACOLIZATION

Pharmaceuticals represent an embodiment of the biomedical paradigm. Biomedical understanding involves the conjunction of three biological sources, as per Martínez-Hernández's definition ⁽¹⁰⁾, which are elaborated below:

Firstly, the anatomoclinical method revolves around anatomy and physiology, signs and symptoms, as well as the lesion and its location. It is grounded in the notions of the normal (health) and the abnormal (disease). Foucault ^(18,19) develops the central idea of normality/abnormality in his work on modern medicine, defining it as a discipline of power and discourse that creates productive order and effects of domination and anomie in the bodies of modern subjects.

Secondly, the microbial paradigm, originating from Pasteur and Koch's discoveries of microorganisms or germs as the cause of infectious diseases, facilitated the transition from the miasmatic to the contagionist paradigm. Modern medicine is profoundly influenced by infectious diseases and antimicrobial therapies.

Thirdly, Molecular Medicine is founded on the detailed study of cellular behavior and its elements concerning their normal or abnormal behavior. This field is currently strongly influenced by genetics and its various tendencies ⁽¹⁰⁾.

Biomedical medicine must be comprehended as a producer of self-care and drug use, as it connects swift solutions for pain, discomfort, and illness with the daily and routine administration of pharmaceuticals.

Through medicalization, we grasp the social, economic, political, and other processes that transform everyday problems into medical issues: disease/pathology/clinic/therapeutics/treatment/cure ^(20–23).

The medicalization of social life gives rise to social iatrogenesis, where social problems are treated as pathologies. This transforms patient-subjects into consumer-subjects of pharmaceuticals, technologies, and medical knowledge operating within the market ⁽⁷⁾. Some effects of social iatrogenesis include the reduction of the autonomy of individuals and social groups, resulting in a loss of agency.

In this context, the pursuit of immediate and quick solutions to illness and disease is influenced by what is deemed medically appropriate or healthy. Knowledge and strategies related to health, as well as coping with illness, pain, and suffering, typically find solutions in the extensive realm of industrial drugs ^(7,8).

SELF-CARE-SELF-CARE: AN EVERYDAY PLACE FOR PHARMACEUTICALS

While the biomedical paradigm questions self-medication and regards it as a source of health risks, it deems self-care acceptable ⁽¹⁾. The biomedical contradiction lies in the disregard or demonization of self-care with pharmaceuticals, despite being one of the most immediate responses to daily health challenges, as evidenced by this research. Self-care assimilates the biomedical, signifying it, imparting new meaning, and transforming it in accordance with the social, political, and specific contexts of each disease or clinical condition.

Self-care encompasses the social representations and practices employed by the population at the level of individuals and groups (such as families) to diagnose, explain, care for, control, alleviate, cure, and address the processes affecting their health without direct and intentional intervention from a doctor or healer ⁽¹⁾.

According to the World Health Organization ⁽²⁴⁾, self-care involves medications, counseling, diagnosis, and/or digital technologies that can be accessed, either wholly or partially, outside formal health services. Depending on the intervention, they may be utilized with or without direct supervision from healthcare personnel.

3. Materials and Methods

The research was conducted through an observational, descriptive cross-sectional, quantitative-qualitative/ethnographic study. The study comprised two clearly defined components: 1. Quantitative, which involved the inventory of drugs and medications in homes, and 2. Qualitative, which was derived from the medical narrative tasks assigned to university students concerning their findings of pharmaceuticals in their homes.

The study took place in three cohorts of second-year medical students during the 2022-1, 2022-2, and 2023-1 semesters, resulting in a total of 265 ethnographies corresponding to the same number of students. For research purposes, considering the substantial volume of pages and information in the inventories and ethnographies (ranging from 5 to 10 pages), a statistical sampling criterion was applied to ensure representativeness and determine information saturation points (95% confidence level, 5% margin of error). Ultimately, 158 representative ethnographies from the three periods were analyzed, with 43, 57, and 58 corresponding to each cohort.

The quantitative research consisted of collecting a detailed inventory of the drugs in each home. It meant looking for them in drawers, drawers, boxes, bathroom furniture, kitchen cabinets, and bedrooms. In some cases, the medicines were organized and kept in a single space in the house (for example on a kitchen shelf); however, in other cases, the medicines were scattered in various places in the home. Photographs were taken and detailed lists were drawn up. The individual result was included as the first part of a report that each student submitted as an assignment for the Medical Anthropology course (4th semester of the Medicine major at the PUCE).

This qualitative-ethnographic research was carried out through questions that the students answered in writing. The ethnographic texts resulting from the exercise were included as the second part in each student's report. The questions were the following:

1. *Describe how the obtainment, use, access, and control of drugs occurs in your home. (Who is responsible? Are there restrictions on use/access? Where are the drugs obtained? How is it decided who uses them? When and how are the drugs taken? Include any other details you deem relevant. Are there traditional and complementary medicine (TCM) products? If so, describe them.*

2. *What does the existence of these spaces with drugs and TCMs mean in your home? (health/illness/care, self-care, advantages, barriers, problems, limits, other issues that you detect).*

3. *Do you identify advantages or risks in the existence, use, and control of your home medicine cabinet? What are they? Explain your answer.*

It is worth mentioning that these were university students from the Medical School of the Pontificia Universidad Católica del Ecuador who were taking Medical Anthropology taught by the author of the research. Within this context, it is important to acknowledge the role of informant subjects with a background in medical sciences, contributing to the enrichment of the ethnography and enabling post-participatory reflections on the ethnographic process. The ethnographies were processed using the ATLAS-Ti program and later in Word and Excel.

The set of 158 ethnographies was initially entered into the ATLAS-Ti program, which allowed the inventory sections (quantitative information) to be separated from the narrative section (qualitative information). Once the numerical data from the inventories was obtained, it was extracted and placed in the Excel spreadsheet for analysis based on descriptive biostatistical criteria. Then, with the use of ATLAS-Ti, the narrative information was classified using ordering codes specially designed by the author based on the research objectives. Each narrative section (paragraphs or complete sentences) with the same semantic meaning was assigned one of the codes. Finally, the coded information was exported to Word to facilitate the analysis according to the meaning and social representations in the sentences.

Ad hoc functional categories were formulated based on the descriptions provided by the informants themselves and pharmacological guides^(25,26). These categories included:

Below are the results concerning the industrial drugs identified and their meanings: classification, uses, symbolism, and implications.

4. Results

Quantitative Results: pharmaceuticals inventory

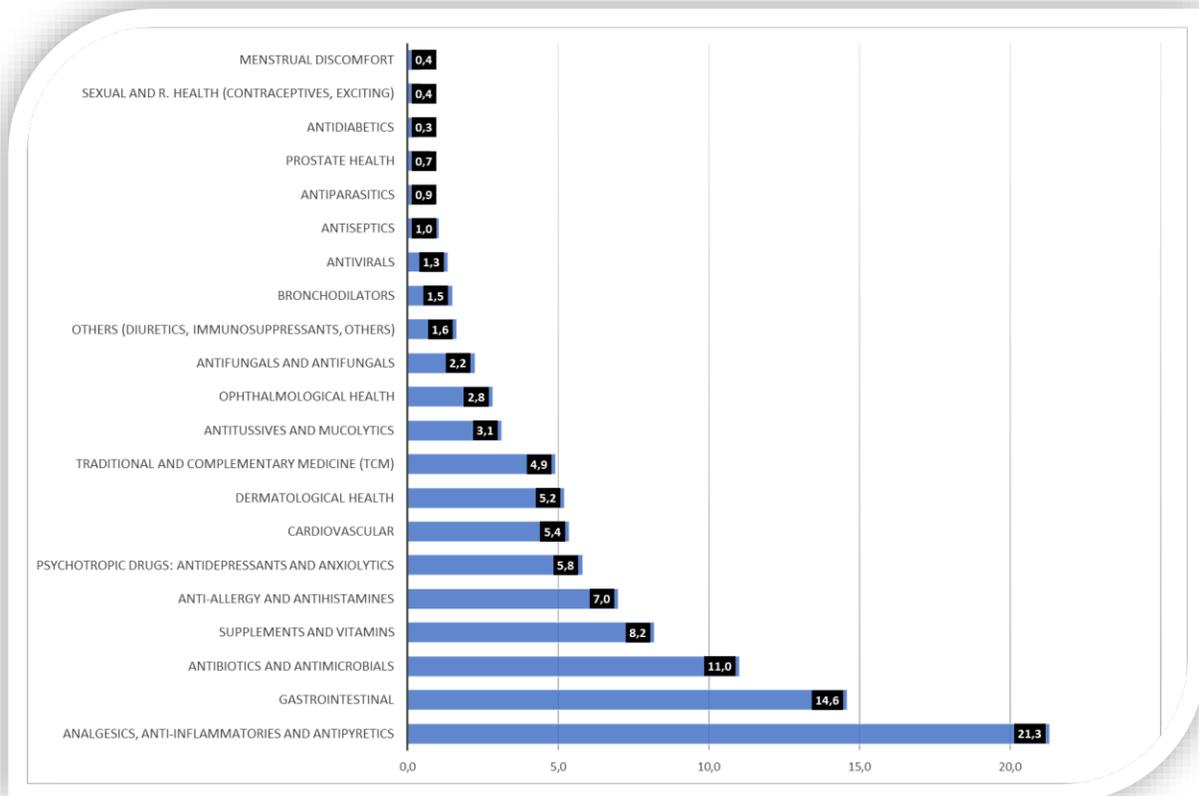
Pharmaceuticals according to their use

Table 1. 21 functional categories of registered pharmaceuticals

1. Analgesics, anti-inflammatories and antipyretics
2. Gastrointestinal
3. Antibiotics and Antimicrobials
4. Supplements and Vitamins
5. Anti-allergy and antihistamines
6. Psychopharmaceuticals : Antidepressants and Anxiolytics
7. Cardiovascular
8. Dermatological health
9. Traditional Complementary Medicine
10. Antitussives and Mucolytics
11. Ophthalmic health
12. Antifungals and antifungals
13. Others (diuretics, immunosuppressants, others)
14. Bronchodilators
15. Antivirals
16. Antiseptics
17. Antiparasitics
18. Prostate health
19. Antidiabetics
20. Sexual and reproductive health
21. Menstrual discomfort

Preparation: Rivas and Freire (2023). *Note: This list aligns with the logic of ethnographic discoveries within homes. It is shaped by the informants' individual understanding of Health/Illness/Care, which fluctuates intermittently between the utilization of pharmaceuticals, Traditional and Complementary Medicines, and distinct forms of self-care.*

Figure 1. Pharmaceuticals mentioned/registered on at least one occasion (classified according to use)



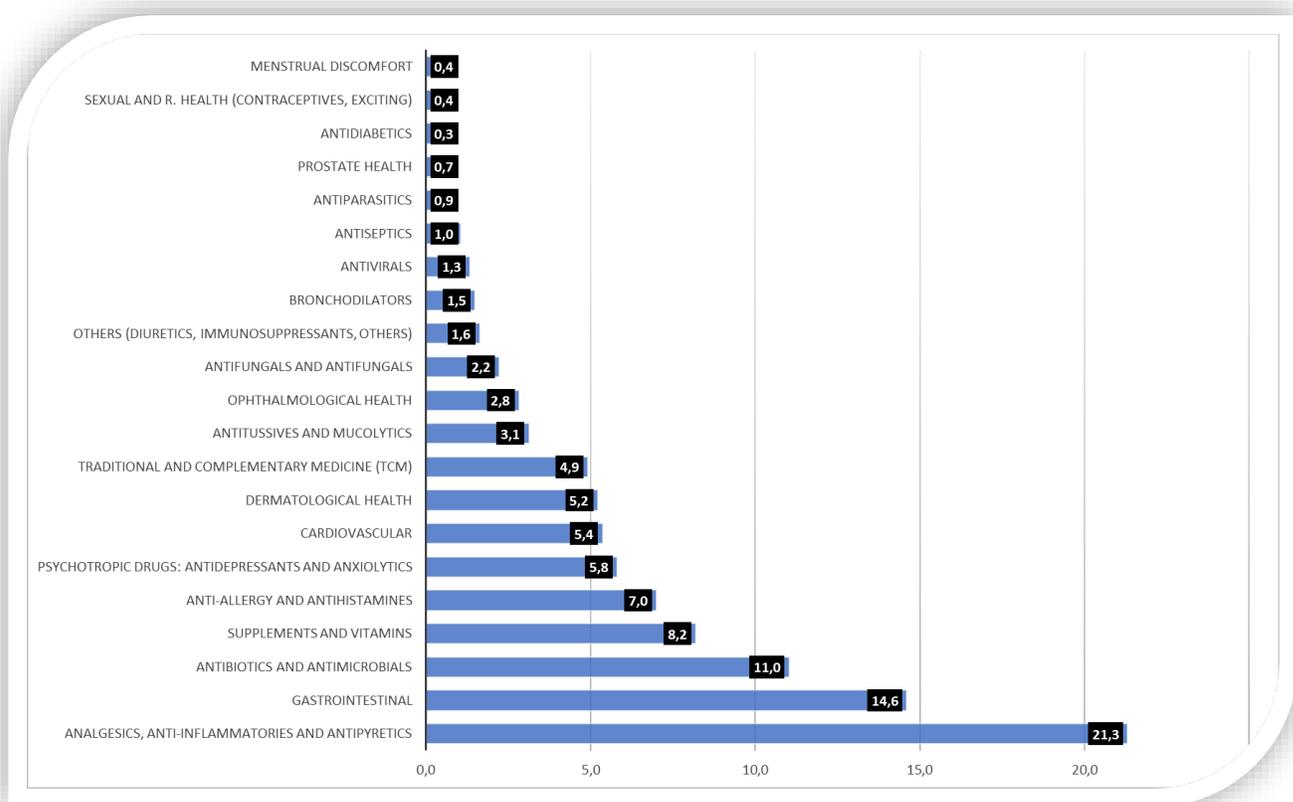
Preparation: Rivas and Freire (2023)

A total of 671 distinct pharmaceuticals were identified and classified based on their use/functionality. The industrial drugs found in households, categorized by their use, were as follows: 1. Analgesics, anti-inflammatory, and antipyretic drugs (21.3%), 2. Gastrointestinal drugs (14.6%), 3. Antibiotics (11%), 4. Supplements and vitamins (8.2%), and 5. Antiallergy or antihistamines (7%). When combined, these five categories accounted for 62.1% of the registrations/mentions, representing two-thirds of the overall total.

The inclusion of Traditional and Complementary Medicine (TCM) products is noteworthy, constituting 4.9% of the registrations. Although traditional medicine was not initially considered in the ethnography as part of industrial drugs, its presence can be attributed to the self-care practices of subjects with Latin American origins. This encompasses the utilization of local and/or indigenous medicines as integral components of their daily lives.

Pharmaceuticals most frequently accumulated classified according to their use

Figure 2. Most accumulated pharmaceuticals: mentioned/registered on more than one occasion (classified according to use)

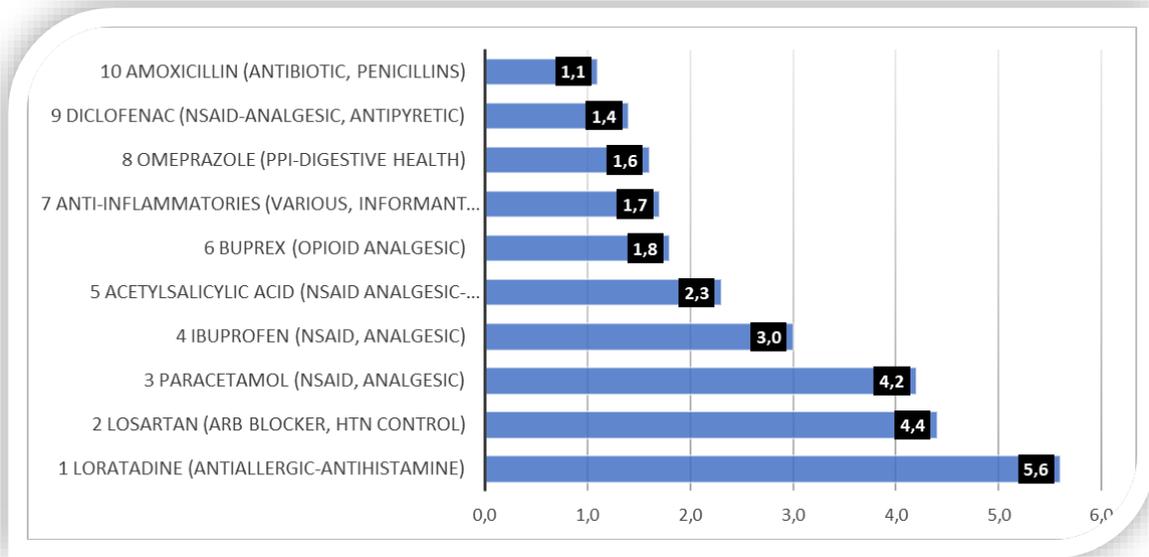


Preparation: Rivas and Freire (2023).

In households, a total of 2,332 pharmaceuticals, repeated and accumulated through multiple mentions in ethnographies, were recorded. They were classified based on their use and functionality. The pharmaceuticals most frequently accumulated in homes were: 1. Analgesics/anti-inflammatory/antipyretics (33.3%), 2.

Gastrointestinals (12.6%), 3. Antiallergics/antihistamines (12.3%), 4. Antibiotics (11%), and 5. Cardiovascular (6.3%). Collectively, these five categories accounted for 75.4% of the registrations/mentions, signifying three-quarters of the total mentioned.

Figure 3. The 10 most mentioned/recorded pharmaceuticals in the ethnographies



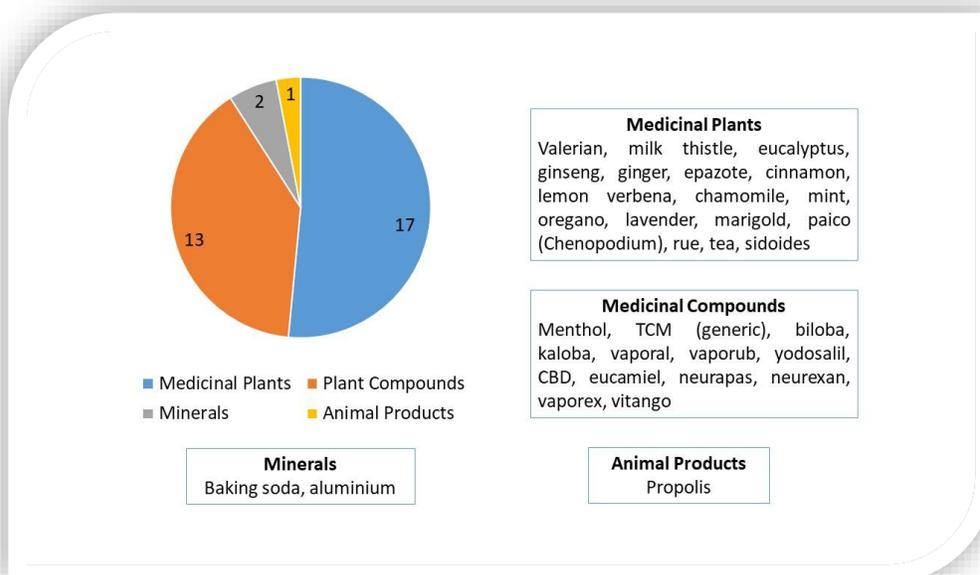
Preparation: Rivas and Freire (2023).

In compiling a list of the ten most frequently used pharmaceuticals, those employed to alleviate pain and general discomfort emerge. These include loratadine, losartan, paracetamol or acetaminophen, ibuprofen, acetylsalicylic acid (aspirin), buprex (opioid analgesic), various anti-inflammatories, omeprazole, diclofenac, and amoxicillin. Together, these pharmaceuticals account for 27.1% of all of those mentioned, representing approximately one-third of the total

pharmaceuticals cited at least once (671 in total). According to the ad hoc pharmacological classification utilized in this research, these fall under antiallergic/antihistamines, medications for high blood pressure (HTN), analgesics for pain, compounds for inflammation (pain), for digestive health (pain and discomfort), and antibiotics (for infections).

Traditional and Complementary Medicine (TCM) products registered in inventories

Figure 4. Traditional and Complementary Medicine (TCM) Products recorded in inventories



Preparation: Rivas and Freire (2023).

Initially, it is noteworthy that Traditional and Complementary Medicine (TCM) products are present in the household drug inventory. However, this should not be deemed surprising, considering it involves a Latin American population wherein the utilization of plants (phytotherapy), animals, and minerals is acknowledged as a self-care practice and a constant characteristic of miscegenation and intercultural relationships that shape the daily social order. In Ecuador, diverse indigenous peoples, Afro-descendants, mulattoes, mestizos, whites, and the foreign population coexist under asymmetrical relations, reflecting variations in the use, access, and control of medicines deemed natural or ancestral and attributed with curative powers. The intriguing aspect of this discovery is that TCM products are categorized as pharmaceuticals, revealing the existence of medical and therapeutic models that extend beyond the biomedical framework ^(27,28).

The proportion of Traditional and Complementary Medicine (TCM) records stands at 4.9%, comprising 33 entries. Primarily, these entries correspond to

products or compounds derived from medicinal plants, including menthol, valerian, silymarin, bicarbonate, biloba, eucalyptus, ginseng, kaloba, vaporal, ginger, alum, epazote, cinnamon, cedar, chamomile, mint, oregano, propolis, vaporub, iodosalil, angustifolia, CBD, chepodium, eucalyptus, neurapas, ruda, tea, vaporex, bitango, and sidoides.

QUALITATIVE RESULTS: MEANINGS, SYMBOLISMS, HERMENEUTICS

A primary set of ethnographic findings revolves around four dimensions:

1. The relationship between pharmaceuticals and the convenience they offer in terms of use.
2. The unrestricted accessibility to pharmaceuticals (medical prescriptions are rarely required for purchase).
3. The sense of security associated with having them readily available.
4. The social identity that emerges from their utilization and accessibility.

Now, let's proceed to examine Table 2.

Table 2. Ethnographic Findings 1 Pharmaceuticals and ease, accessibility, security and identity

<i>...a pharmaceutical gives feelings of security, health and tranquility.</i>
<i>Pharmaceuticals involve a very large space and are the first choice when treating any type of discomfort...</i>
<i>My mother and I came to the conclusion that that "little box of pills" more than security, means speed and agility for the solution of the illness or condition.</i>
<i>The existence of the medicine cabinet in the family represents a form of self-care to solve minor ailments such as; headache, common cold, muscle pain or fever (...)</i>
<i>...demonstrates a certain level of dependence on the feeling of security that pharmaceuticals provide us with respect to maintaining health.</i>
<i>...my mother or father buys them, they usually buy them at a pharmacy that we have at the entrance of our complex.</i>
<i>They represent self-care, closely related to the goal of achieving health.</i>
<i>...these spaces within the home are an identifying part of the family.</i>
<i>The prolonged consumption of pharmaceuticals or traditional medicine is part of a person's identity (...)</i>
<i>(...) They fundamentally mean security since they are like a lifesaver if in any situation the illness happens to a member of my family.</i>
<i>(...)pharmaceuticals mean immediate and effective support, insurance that will definitively support the recovery of the body's physiological state.</i>
<i>(...) means that the disease is a danger, so pharmaceuticals are the imminent solution to the state of decline, the disease is no longer seen as an indestructible monster.</i>

Preparation: Rivas, A. 2023

The ethnographic testimonies reveal the habitual medicalization processes (8) that establish a pattern of self-care related to the use of pharmaceuticals, establishing a connection between consumption, the market, health, disease, care, and solutions ^(1,2,7,8,14).

Ethnography highlights the intimate connection between pharmaceuticals and immediacy, dependency, rationality, as well as the alleviation

of pain and discomfort linked to both initial and chronic clinical conditions, and occasionally, acute ones.

A second set of ethnographic findings reveals:

1. The correlation between industrial pharmaceuticals and social and economic inequality
2. The blending of the Biomedical model with Traditional and Complementary Medicine

3. The significance of pharmaceuticals for families (social groups)
 4. The reassurance derived from storing medications at home (especially amid COVID-19 concerns)
 5. The impact of Doctor-Patient Relationships on the procurement and storage of pharmaceuticals.
- Let's proceed to Table 3.

Table 3. Ethnographic Findings 2 Pharmaceuticals, inequality, preference, family, CODIV-19, RMP

<i>We can find vitamins (...) that do not provide calories to our diet and rather contribute by complementing it in a simple and effective way.</i>
<i>The existence of these spaces (with medications) is reflected as a primary care model called self-care, which has its advantages and disadvantages, including savings in money and time.</i>
<i>...the inevitable intervention of my parents' professional life into the family environment; We have grown and learned certain areas of the health area.</i>
<i>...here pharmaceuticals have a meaning of simplification and since it is the home of doctors in general, diseases are resolved right here.</i>
<i>(son of doctors) ...represents the growth we have had as a result of our family environment and how little by little we have assimilated medications as a normal part of our daily life.</i>
<i>... my parents, to avoid contracting the virus caused by SARS-COV 2, made a massive purchase of pharmaceuticals (...) at the start of this pandemic.</i>
<i>The advantages of having a first aid kit within reach in this time of pandemic and even more so when pain or a possible cold suddenly appear.</i>
<i>...in care centers, staff refer to a cold or intense pain in some part of our body as "it's not urgent, you can wait and go home without being treated" or "you're wasting your time, a pill will take it away." immediately".</i>
<i>...if health professionals do not take care of our health, then we must do it ourselves and this leads us to the creation of home medicine cabinets.</i>
<i>There are many occasions in which my mom has gone to the doctor because of constant pain (for example, neuralgia) more than once and at each visit they send her the same prescription over and over again. In his words: "Why am I going, if I already know what they are going to send me?"</i>

Preparation: Rivas, A. 2023

Ethnographic testimonies center on the time and cost savings associated with maintaining substantial quantities of pharmaceuticals at home. As discussed in earlier sections, a routine of daily self-care has been established, shaping a medicalizing order. One contributing factor to this practice is the presence of professional doctors within certain households (parents), facilitating the use, access, and control of pharmaceuticals. Another noteworthy

point from ethnographic testimonies is that strained doctor-patient relationships among some households contribute to the accumulation of medications at home ^(1,7,8,29).

A third set of ethnographic findings illustrates the connection between pharmaceuticals, the market, and the normalization of their use and accumulation. Let's now examine Table 4.

Table 4. Ethnographic Findings Pharmaceuticals, market, biopower, normalization, accumulation

<i>The pharmaceutical industry has been gradually introducing itself into the lives of each person to promote its products.</i>
<i>(Pharmaceuticals) are also linked to the way in which its consumer perceives himself, and - as a consequence of this - to the way in which this consumer will be seen in his society.</i>
<i>The biomedical system to which we are accustomed not only generates a type of blind trust in the use of pharmaceuticals, but also encourages their purchase and accumulation despite not being necessary (...)</i>
<i>Although they sometimes have a high cost, it is easier to access this than resorting to traditional medical practices.</i>
<i>(...) pills are taken to have more strength, sleep better, promote pregnancy, calm the flu, relieve a headache or throat pain and most illnesses.</i>
<i>...the use of pharmaceuticals is a tool that we have become accustomed to using as a first measure, especially in families that live in urban areas, since we have become accustomed to curing all types of ailments in this way and it has been effective for us, obtaining results quick and easy to use.</i>

...we consume them as a preventive method and as a treatment; That is, it is not necessary for the disease to manifest itself for us to feel the need to take medication.

... we do not encourage the intake of pills for any or minimal discomfort, rather we opt for traditional medicine such as aromatic waters, plants, menthol, among others, which we also find in this medicine cabinet such as valerian drops that we believe are useful for us In waking states we can fall asleep, remain passive and calm our nerves.

Preparation: Rivas, A. 2023

The ethnographic testimonies reveal the intense relationship between medicalization, pharmacolization, consumption, market, health, illness, and care, corresponding to phenomena already reported by Menéndez. ^(1,2), Pazos-Garciandía ⁽⁷⁾, Conrad & Leiter ⁽²⁰⁾, Conrad ⁽²²⁾. The mention of Traditional and Complementary Medicine as a complement to the pharmaceuticals present in homes is noteworthy. This finding is not coincidental, considering that 4.9% of the accumulated products correspond to plants and natural medicine compounds.

A fourth group of ethnographic findings reveals the relationship between Traditional and Complementary Medicine (MTC) and forms of self-care in homes. While the ethnographies specifically inquired about industrial pharmaceutical products, the inventories and testimonies documented medicinal plants, processed and semi-processed elements often referred to as "natural medicine." This illustrates the amalgamation of self-care models, drawing not only from medications but also from substances considered indigenous or naturopathic. The testimonies highlight the normalization of the use, accumulation, and disposal of plants and alternative elements.

Table 5. Ethnographic Findings 4 Pharmaceutical Inventory: Testimonials about Traditional and Complementary Medicine

<i>In my house we use different types of tea and medicinal leaves as home medicine.</i>
<i>Traditional medicine also occupies a special place within the home since it can be found in the foods that can be consumed daily.</i>
<i>These are used in order to maintain, prevent and also treat mild diseases (...).</i>
<i>When someone is sick, for example, with gastroenteritis, they prepare infusions with oregano and lemon.</i>
<i>(plants) prevent diseases by powerfully balancing your defenses</i>
<i>We also consume a lot of medicinal waters when we have any discomfort, trying not to consume medications continuously.</i>
<i>I have to mention that we usually resort to these practices because my family comes from this type of culture (indigenous, rural).</i>
<i>When we had COVID, while we were taking medications prescribed by the doctor, we continued using some techniques that are normally used in the flu, we even used tips with husks to decongest and thus be better.</i>
<i>I think that traditional medicine is not a barrier in the treatment of diseases since it can be seen that several of these traditional knowledge have brought certain advantages in the treatment of various diseases.</i>

Preparation: Rivas, A. 2023

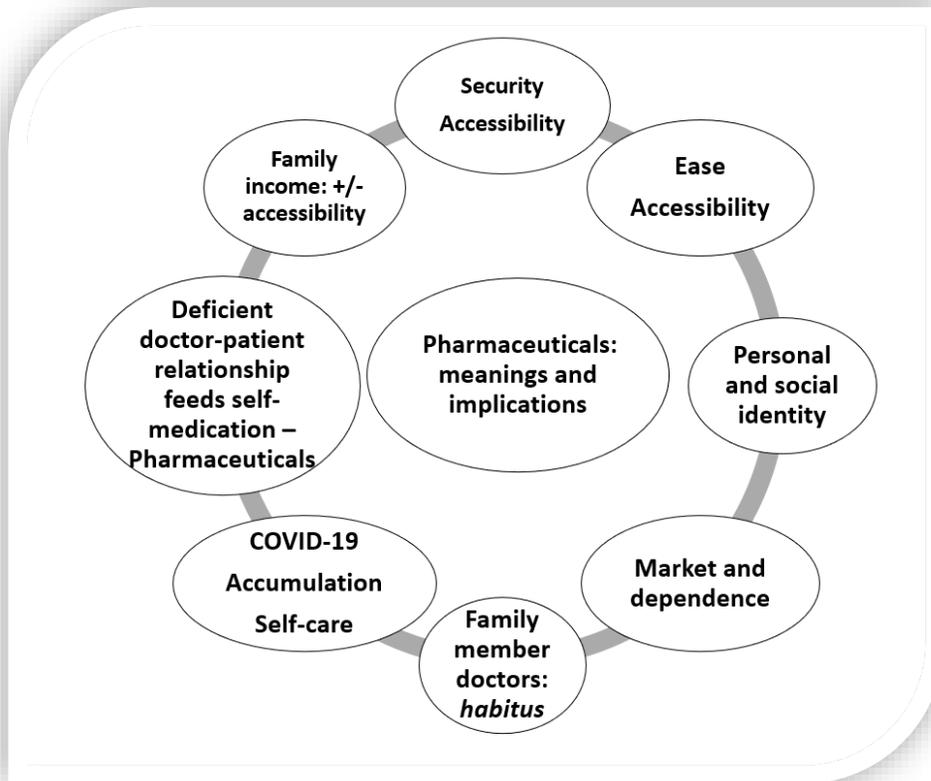
The ethnographic findings in this section reinforce the concept of complementarity between the biomedical and the traditional. These categories do not emerge as mutually exclusive; instead, they are blended, overlapping, and concurrently practiced. The normalization of diverse medical approaches is an integral aspect of the daily life of Latin Americans.

the diverse dimensions that underpin the daily structure supporting medicalization and pharmacolization in the studied population. It can be asserted that these findings may be extrapolated to the Ecuadorian and Latin American population, and even to other parts of the world, particularly in urban areas, although this extrapolation should be validated through future multi-site research.

5. Synthesis of Quantitative and Qualitative Results

Figure 5 systematically illustrates, through a graph,

Figure 5: Cultural and Material Dimensions of Medicalization with Pharmaceuticals



Preparation: Rivas, A. 2023

The meanings associated with pharmaceuticals center around safety, ease of acquisition, and accessibility. However, they also shape personal and social identities. Possession, storage, usage, access, and control of pharmaceuticals in households are closely linked to their market prices, family economic constraints, and habits that contribute to a social order tending towards medicalization.

The study reveals an immediate relationship between pain and industrial drugs, correlating discomfort and the experience of disease. Analgesics, anti-inflammatories, and antipyretics constitute 21.3% of the mentioned pharmaceuticals, accounting for one-fifth of the total registered.

Gastrointestinal drugs, with 14.6% of mentions, are the second most frequently cited and accumulated. This suggests a high prevalence of gastrointestinal infections, common diseases in Ecuador and other developing countries in Latin America.

The most accumulated and frequently mentioned pharmaceutical in the ethnography is loratadine (5.6%), an antihistamine or antiallergy medication that indicates biomedical disorders but may also reflect ecological and psychosocial issues. Excessive

use, concealed by self-care/self-medication, cannot be ruled out.

Dermatological drugs (5.2%) and ophthalmic drugs (2.8%) also indicate the daily challenges of medicine in the context of climate change. Skin and eye discomfort are closely tied to increasingly adverse environmental conditions in Ecuador and globally.

The second most accumulated pharmaceutical is losartan (4.4%), an AT receptor blocker used to control high blood pressure. Its high record suggests a prevalent occurrence of cardiovascular diseases in the studied population.

Sexual and reproductive health had a low mention in relation to pharmacology (0.4% of the total), possibly due to the existing taboo around sexuality and information concealment. Further research is needed in this regard.

Ethnography reveals the interaction between the three models: Biomedical, Traditional and Complementary Medicine, and self-care, particularly in the form of self-medication. The storage of products for pain and discomfort at home includes Traditional and Complementary

Medicines, showcasing the coexistence and interaction of various care systems.

Elements of Traditional and Complementary Medicine categorized as "drugs" (4.9% of the total) suggest the coexistence, interweaving, sharing, transaction, and even hybridization of the models defined by Menéndez. There is a plural rationality in health self-care, represented by self-medication and the search for daily responses to pain and discomfort.

Self-care through self-medication with industrial drugs emerges as a central finding. While it responds to practical, economic, and social rationales, it may also pose health risks without adequate supervision. The same concern applies to Traditional and Complementary Medicine: ensuring the appropriate dosages and timings for products of natural or indigenous origin requires further research.

Pain and discomfort represent recurring and regular social and individual realities that demand clear and reliable responses. The research demonstrates that controlling, managing, and even overcoming pain and diseases are contemporary challenges addressed through the daily, continuous, and mixed use of pharmaceuticals and Traditional and Complementary Medicine products. Self-care represents the primary level of care for individuals and groups, integrating biomedical knowledge with diverse forms of knowledge, such as traditional knowledge, in the health-disease-care process. The pursuit of solutions for ailments, pain, and discomfort is rationally blended, affirming medical plurality as a contemporary reality.

The research prompts contemplation on collective health and its modern challenges as a multifaceted, rational phenomenon characterized by therapeutic hybridization and medical plurality.

All systems illustrate the existence of biopower, control over bodies, shaped through the market, which tends to universalize medicalization while concurrently preserving traditional approaches to managing illnesses and discomforts.

6. Discussion

There are few studies on medicalization and pharmacolization in Latin America; however, it is worth mentioning the work of Martínez-Cortés⁽³¹⁾, who presents a study carried out on university students from Puebla, Mexico, in which he reports a high rate of self-care with drugs, with 96% of those surveyed using medication without medical

recommendation. The drugs reported in the study were: 97.7% non-steroidal anti-inflammatory drugs and combinations, 33.6% mucolytics, 32.9% antiparasitics, 28.8% systemic antimicrobials, 6.5% topical acne drugs, and 5.8% oral contraceptives.

The findings that Mexican study and this research have in common are the absence of prescriptions or medical supervision and the participants' daily need to control pain and other discomfort. In this study's case, the most used drugs were: 21.3% analgesics, anti-inflammatories and antipyretics, 14.6% gastrointestinal medication, 11% antibiotics, 8.2% supplements and vitamins, 7% anti-allergy or antihistamines, 5.8% psychotropic drugs, 5.4% cardiovascular medication, 5.2% dermatological medication, 4.9% TCMs, 3.1% antitussives and mucolytics, 2.8% ophthalmological medication, and 2.2% antifungals. Other drugs mentioned with percentages lower than 2% include: diuretics, immunosuppressants, bronchodilators, antivirals, antiseptics, antiparasitics, prostate medication, antidiabetics, sexual and reproductive health medication, and drugs for menstrual discomfort.

This research is innovative in several ways. First, it systematically investigates the implications that drugs have for Ecuadorian and Latin American households of urban origin in the capital city of Ecuador, Quito. It is also innovative since it includes elements of TCM (4.9%), also called natural medicine, reflecting the *mestizo* ethnic origin of the informants who combine Western biomedical knowledge (drugs) with traditional indigenous and Afro-descendant knowledge (plants, herbs, and natural compounds). Other studies report on self-medication abuse^(32,33); however, they do not delve into the anthropological and symbolic meaning of drugs and the social, cultural, educational, and economic reasons that lead to their daily use and prevalence in home medicine cabinets.

Interpreting the spaces in the home in which drugs for pain and discomfort are stored goes beyond both the behavioral notion of "good patient" (does not self-medicate) or "bad patient" (self-medicates), as well as the mere physical or taxonomic description of drugs. This research proposes the existence of daily customs originating from various sources, which constitute a social order in the challenges of the disease: the medicalization *habitus*. The ethnographic data show a high number of drugs kept and used associated with their main social representations: need, security, ease, and social identity in contexts of open accessibility (purchase without a prescription), socioeconomic inequality, anthropological normalizations, and trust.

The research also demonstrates the contradiction of the biomedical model, which on one hand criticizes and condemns self-medication, but on the other hand indirectly promotes it by placing the use, access, and control of industrial drugs in the hands of the market and advertising. This contradiction has already been reported by authors such as Menéndez ⁽¹⁾, Illich⁽⁸⁾, and Pazos-Garciandía⁽⁷⁾.

Self-medication should be understood as a form of self-care. This Latin American study confirms that self-care includes the social representations and practices that the population uses at the individual and family level to diagnose, explain, care for, control, and alleviate pain and ailments that affect their health. Let us remember some ethnographic data: while one informant commented, "...a pharmaceutical gives feelings of security, health and tranquility," another stated, "Traditional medicine also occupies a special place within the home since it can be found in the foods that can be consumed daily." Both testimonies illustrate and confirm self-care as a category that goes beyond pharmacology, linking contemporary health challenges with the daily lives of citizens, their senses, knowledge, desires, and needs.

7. Closing Remarks

Medicating orders deserve greater attention in the current world system. Both self-care and the habit of self-medication are complex realities, which, based on research like this, can be studied beyond the biomedical paradigm, its concepts and limitations. Industrial drugs, in their very diverse presentations and contexts, are already part of modernity as are other elements such as processed foods and beverages, mass-produced clothing, mass means of transportation, and cultural industries.

The use of, access to, and control of industrial drugs reflect the agency capacity of modern subjects, even in unfavorable contexts of poverty, restricted financial resources, or poor accessibility to health systems. The autonomous decision of to which medical system people turn to confront pain, discomfort, and illness must be recognized as a sociological value in the population. The agency capacity of the subjects needs to be accompanied by the executors of public policies, but also by medical education and education at all levels, to ensure the sustainability of decisions, the adequate management of pain, discomfort, and diseases, and the strengthening of various forms of well-being.

It is necessary to draw on the theoretical-methodological framework that this research proposes to carry out comparative studies on medicalization, pharmacolization, and medicating *habitus*. With a greater horizon of statistics and comparative ethnographies, we will better understand the role of pharmacology in the contemporary world.

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References

1. Menéndez E. . Hegemonic, subaltern and self-care models. In: Navarro R, ed. *Medical anthropology and interculturality* . McGraw Hill Education 2016:177-187.
2. Menéndez E. Medical self-assessment model and subordinate alternative model. In: Campos-Navarro R, ed. *Medical Anthropology and interculturality*. McGraw Hill Education 2016:297-320.
3. Molina-Aguilar J. Self-care and self-medication: reflections and challenges from the ontology of the social being. *Rev Costa Rica Psychol* . 2021;40(2):107-129. doi:10.22544/rcps.v40i02.03
4. Breilh J. . The social determination of health as a tool for transformation towards a new public health. *Rev Fac National Public Health*. 2013;31(suppl 1):13-27.
5. Pérez-Tamayo R. Old diseases and new diseases. 21st Century Editors ; 1985.
6. Hortón R. Offline: COVID-19 is not a pandemic. *The Lancet*. 2020;396(10255):874. doi:10.1016/s0140-6736(20)32000-6
7. Pazos-Garciandía A. Key concepts of medical anthropology in occupational therapy. Sintesis Publishing House ; 2015.
8. Illich I. Medical nemesis: the expropriation of health. Joaquin Mortiz; 1984.
9. Larrea- Killinger C. The culture of smells: an approach to the anthropology of the senses. Abya-Yala Editions; 1997.
10. Martínez-Hernández A. Medical anthropology: theories about culture, power and illness. Anthropos Editorial; 2015.
11. Ember C, Ember M, Peregrine P. *Anthropology*. 10th ed. Pearson-Prentice Hall; 2004.
12. Miller B. *Cultural anthropology*. 7th ed. Pearson-Prentice Hall; 2016.
13. Bourdieu P. *The Practical Sense* . Taurus; 1991.
14. Rivas A. *Medical Anthropology Course*, Faculty of Medicine; 2020.
15. Lévi-Strauss C. *Structural anthropology*. Paidós; 1995.
16. Giddens A, Sutton P. *Sociology*. 7th ed. Alliance; 2013.
17. Galárraga AS, Hidalgo SA, Rivas T A. Medicalization and use of analgesics, according to medical school students. A study carried out at the Pontifical Catholic University of Ecuador. *Cuad Medico Soc*. 2022;61(3):115-126. doi:10.56116/cms.v61.n3.s1.2021.91
18. Foucault M. The birth of the clinic: an archeology of the medical gaze. 21st Century Editors; 2012.
19. Foucault M. History of medicalization. *Educ Med Health*. 1977;11(1):3-25.
20. Conrad P, Leiter V. Medicalization, markets and consumers. *J Health Soc Behav* . 2004;45:158 -176.
21. Conrad P. The shifting engines of medicalization. *Journal of Health and Social Behavior*. 2005;46(1):3-14. doi:10.1177/002214650504600102
22. Conrad P. *The Medicalization of Society: On the Transformation of Human Conditions Into Treatable Disorders*. JHU Press; 2007.
23. Meneu R. Life medicalization and the recent appearance of “pharmaceuticalization. *Soc Espanola Farm Hosp*. 2018;42(4):174-179.
24. OMS. Self-care interventions for health. Accedido el 10 de noviembre de 2023. https://www.who.int/es/health-topics/self-care#tab=tab_1
25. Sánchez Vallejo S, Cortacero Almendros M, Pinto Nieto C, Acosta Robles P, Fernández Martín J, Verdejo Reche F F . Classification of Drugs by pharmacological activities. Preparation of a triptych . Hosp Poniente Public Company . 2008.
26. Tayebati SK, Nittari G, Mahdi SS, Ioannidis N, Sibilio F, Amenta F. Identification of World Health Organization ship's medicine chest contents by Anatomical Therapeutic Chemical (ATC) classification codes. *Int Marit Health* . 2017;68(1):39-45. doi:10.5603/imh.2017.0007
27. Perdiguero E. A reflection on medical pluralism. In: *Health and interculturality in Latin America anthropology of health and intercultural criticism*. Abya Yala, Spanish Agency for International Cooperation, Publications Service of the University of Castilla-La Mancha, Carlos III Foundation for International Cooperation and Health, Board of Communities of Castilla-La Mancha; 2006:33-49.
28. Young JT. Illness behavior : a selective review and synthesis. *Sociol Health Illn* . 2004;26(1):1-31. doi:10.1111/j.1467-9566.2004.00376.x
29. Menéndez E. Models of care for illnesses: theoretical exclusions and practical articulations. *science amp Saude Collective* . 2003;8(1):185-207. doi:10.1590/s1413-81232003000100014
30. Menendez E. Self-care of illnesses and some anthropological imaginaries. *Contempts Rev Cienc Soc*. 2018;(58):104-113. doi:10.29340/58.1999
31. Martínez Cortés F. Illness and suffering. Science and humanism in medical practice. In:

- Medical Anthropology and Interculturality. McGraw Hill Education; 2016:247-252.
32. Aveiga Hidalgo MV, Alonzo Pico OM, Villarreal Ger MC. Complications associated with self-medication and its adverse effects in young adults who attend the Huaca health center. Dilemmas Contemp. 2021. doi:10.46377/dilemas.v8i.2813
33. Orueta R, Gómez-Calcerrada RM, Sánchez A. Self-medication. SEMERGEN Medicina Fam. 2008;34(3):133-137. doi:10.1016/s1138-3593(08)71865-3