

Natural Medicine and COVID 19 in Ecuador

Frank Hutchins[1]

1. Bellarmine University, Estados Unidos

Doi: <https://doi.org/10.23936/pfr.v5i3.179>

PRÁCTICA FAMILIAR RURAL | Vol.5 | No.3 | Noviembre 2020 | Recibido: 07/09/2020 | Aprobado: 26/11/2020

Cómo citar este artículo

Hutchins, F. Natural Medicine and COVID 19 in Ecuador. *Práctica Familiar*. 2020 november; 5(3).

Compartir en:



Abstract

Ecuador is a pluricultural country, which is reflected in its history of medical pluralism. This has become especially apparent with the spread throughout the country of COVID-19. This paper discusses survey results on the use of natural medicines to prevent the virus. Respondents in the region of Santo Domingo de los Colorados indicate they have turned to a variety of natural remedies, such as lemon, ginger, and garlic, during the pandemic. This contributes to a growing body of studies that analyze the use of natural medicines to treat or prevent COVID-19.

Keywords: natural medicine, family strategies, Covid-19

Medicina natural y COVID 19 en Ecuador

Resumen

Ecuador es un país pluricultural, lo que se refleja en su historia de pluralismo médico. Esto se ha vuelto especialmente evidente con la propagación del COVID-19. Este documento analiza los resultados de una encuesta sobre el uso de medicamentos naturales para prevenir el virus. Los encuestados en la región de Santo Domingo de los Colorados indican que han recurrido a una variedad de remedios naturales, como limón, jengibre y ajo, durante la pandemia. Esto contribuye a un creciente cuerpo de estudios que analizan el uso de medicamentos naturales para tratar o prevenir COVID-19.

Palabras clave: afrontamiento, estrategias familiares, Covid-19

Introduction

The sensation or diagnosis of an irregularity in one's mind or body, or the desire to prevent this, ushers in a search for remedy. COVID-19, with its global breadth and potential for suffering and death, creates a sense of urgency for treatment or prevention. The following paper presents survey data on the use of natural medicines to prevent COVID-19 in the area of Santo Domingo, Ecuador. The primary objective is to examine the use of alternative and complementary therapies to increase immunity in the population that is potentially exposed to the coronavirus. A secondary question behind the survey is whether the response to the pandemic represents a deeper ambivalence toward western medicine, and a concomitant turn toward natural remedies that reflects a long history of medical pluralism in Ecuador.

Biomedical solutions to COVID-19 dominate headlines around the globe. But several reports have been published during the outbreak about the use and efficacy of herbs and natural compounds. Ganguly and Bakhshi reviewed literature in search of clinical trials underway on traditional and complementary medicines. While they found few

trials reported in mainstream journals, they found multiple studies reported in India and China, where the use of herbal remedies is relatively common. The authors point out that research done on herbals is often less rigorous than other medical research, concluding that “(R)andomized clinical trials involving herbal remedies conducted with sound and consistent methodology are imperative at this hour.” (Ganguly and Bakhshi 2020)

Fuzimoto and Isidoro searched Pubmed for articles published after the SARS-CoV-1 epidemic (2002) that reported results from studies investigating the antiviral properties and mechanisms of action of herbs or natural compounds (Fuzimoto and Isidoro 2020). Their argument was that since the homology between the SARS-CoV-1 and SARS-CoV-2 is around 80%, “effective herbs-compounds for the former would likely be beneficial for the latter.” They found a total of 43 articles, 31 of which reported the potential efficacy of natural compounds to fight off the coronavirus. Their conclusion was that an integrative approach that includes natural compounds may be useful to fight coronavirus infections. The preliminary study reported in this paper contributes information about which natural remedies are used, and by whom, in a region of Ecuador that is a geographical and cultural crossroads. It does not address efficacy.

Santo Domingo de los Tsáchilas

Santo Domingo is the fourth largest city in Ecuador. It was referred to by 1960 as a “new pioneer zone,” characterized by growing settlement due to the opening of highways. Geographically, it sits in an alluvial fan on the western edge of the Andean foothills, as a crossroads for commercial traffic moving from Quito in the mountains to the east to various cities on the coast both directions {Burt, 1960 #5}. The population of the urban area is about 450,700 (knoema 2020), made up primarily of mestizos (about 80%). These include internal migrants from various provinces, and external migrants from neighboring countries. There are also about 30,000 Afro-Ecuadorians in the urban area. Nearby are eight Tsáchila indigenous communities, with a total population of about 3,500 (Ecuador 2015).

The first reported case of COVID-19 in Ecuador was a 71-year-old Ecuadorian woman who flew into Guayaquil from Spain on Feb. 14, 2020. In the months that followed, Ecuador was frequently referred to in the international press as experiencing one of the worst outbreaks in the world (León Cabrera and Kurmanaev 2020). According to data from the Pan-American Health Organization, as of Nov. 11, 2020 Ecuador had nearly 176,000 COVID cases, nearly 13,000 deaths, and 155,000 recovered cases. For that same date, the province of Santo Domingo de los Tsáchilas registered 5,351 cases, with 480 deaths (Organization 2020).

Methodology

In the months of April and May 2020, electronic surveys were given to approximately 2,000 people via emails, social media, and WhatsApp. For this reason, the precise number cannot be determined. The survey asked about the use of natural medicines during the COVID-19 pandemic. Respondents were asked about their age, gender, and whether they lived in rural or urban areas. Questions were also asked about education, occupation, income, and basic health history. Specific questions asked respondents whether they used alternative medicine (55% did); what kind of alternative therapies they used (homeopathy, naturopathy, acupuncture, etc); who recommended the use of natural medicines (family member, friend, media source, doctor); whether the respondent used natural medicine as a preventive measure (76.2% said yes); what natural products were used; and how much was spent on these products. On average, there were just over 200 responses to each survey question.

Results

Nearly half of 211 respondents (45%) said they regularly used alternative medicines, including naturopathy and homeopathy. Just over three quarters of 210 respondents indicated they use natural medicines to strengthen their defense system during the pandemic. A majority of respondents were women (66%) living in urban areas (78%) and between the ages of 18-40 years old (63.6%). Income varied from around \$400 a month (46.5%), to \$2000 per month (9.6%). About half (46.5 %) said they spent \$5 or less on these products in the week prior to receiving the survey. Just over 10% said they spent over \$30 during that period.

To the question of who recommended the use of natural medicines, 42% of 171 respondents indicated it was a family member. For just over 26%, the decision to use natural medicines was related to personal experience. Other recommendations came from the media (8.8%) and homeopathic doctors (7%).

Given a list of natural products on the survey, a significant number of respondents said they used lemon (89%) and ginger (64.7%) for preventative purposes. Other common natural products were Vitamin C (58%), garlic (45.6%), honey (37.7%), and natural teas (37.7%). Respondents also reported using valerian (11%), nightshade (4.4%), and noni (2 %), which comes from a small evergreen tree.

Discussion

Ecuador, like much of the Andean region, has a long history of medical pluralism that includes extensive use of natural remedies. Medical pluralism recognizes the various healing options within a particular culture or society, with each characterized by particular healers, techniques, and medicines (Leslie 1976, Leslie 1980). Chrisman and Kleinman divided these roughly into the popular, folk, and professional health sectors (Chrisman and Kleinman

1983). All three sectors exist in Ecuador, but seldom are the boundaries absolute. Frequently, patients employ multiple healing options, which regularly incorporate techniques and substances from other traditions (Miles and Leatherman 2003). Olsen and Sargent, in an edited volume on African medical pluralism, see the various healing options not as either/or choices, but as “a sliding scale of responses to disease [that] are not mutually exclusive” (Olsen and Sargent 2017).

While western medicine dominates the professional sector in Ecuador, there is a substantial list of healers in the popular and folk sectors. These include general curanderos, masseur/masseuse (*sobador*), herbalists, cleansers (*limpiador*), spiritualists, and midwives (*parteras*) (Pedersen and Coloma 1983). While traditional healers have been historically marginalized, Ecuador adopted a new constitution in 2008 that legally recognized indigenous medicine. Eventually a *Dirección Nacional de Salud Intercultural* (State Office of Intercultural Health) was established within the Ministry of Public Health. Rhetorically at least, the government subscribes to a model of intercultural health “understood essentially as practices in health and health care that bridge Indigenous Medicine and Western Medicine, where both are considered as complementary” (Mignone, Bartlett et al. 2007).

Ethnographic research on healing practices and preferences reveals multiple factors that influence healing choices. Clearly cost is a primary consideration, but other issues such as access and identity also play roles. Finerman and Sackett studied the ethnomedical system in the Saraguro area, in the central Andes of Ecuador, and found that home gardens were a primary location for the cultivation of medicinal plants. The nine gardens they documented had on average nearly 100 plant varieties, with about 70 percent being used for medicinal purposes (Finerman and Sackett 2003). Multiple studies, particularly in southern Ecuador, reveal that medicinal plants are readily available in local markets. Tinitana et al documented 160 medicinal plant species for sale in 33 traditional markets in Loja Province. This proliferation of medicinals was attributed to the lower cost of medicinal plants, confidence in traditional medicine, and/or sociocultural environment (Tinitana, Rios et al. 2016). In the same region, researchers looked at the properties of the “horchata” drink (also called “aguas frescas” or “agua de frescos”), which is made with 16 essential plants, along with honey or cane sugar and lemon. Thirty-two therapeutic uses were documented for the horchata mixture (Rios, Tinitana et al. 2017).

In northern Ecuador, particularly in the province of Imbabura, several studies have focused on the use of medicinal plants by *parteras*. A study reported by Torri in 2013 documented the variety of plants used before, during, and after childbirth by midwives in the Otavalo area. Plants were often used to restore the hot-cold balance in a woman’s body, especially during postpartum recovery. While midwives in general relied heavily on medicinal plants, younger midwives at times turned to allopathic medicines. As with other health trends in Ecuador, this research reflects emerging hybrid systems of healthcare (Torri 2013).

While data may not yet be available to explain specific popular and folk therapeutic responses to the COVID-19 pandemic in Ecuador, earlier research on acute respiratory infections could provide insight. Luque, in a 2007 article in *Human Organization*, reported on data from interviews in rural Ecuador with caregivers and healthcare providers about responses to respiratory infections in children. His conclusions reflect the complexity of medical pluralism: cultural disconnects between poor indigenous and mestizo populations and biomedical professionals; limited resources to seek treatment beyond the household level; and problems with access to clinics or hospitals. The result was a variable mixture of herbals, and over-the-counter and prescription medicines (Luque 2007).

The impacts of cultural and structural factors in health-related knowledge and decision-making are historically deep and connect misgivings about Western medicine to broader experiences of injustice. Preliminary ethnographic research in the Otavalo area of Ecuador, where various intercultural health projects have been launched, reflects myriad reasons why mestizo and indigenous populations often rely first on the popular and folk sectors for healing. The following accounts, taken from fieldnotes over the past five years, suggest that prejudice, disrespect, and cost may erode trust in biomedicine, while cultural consonance and accessibility favor popular and folk options:

- in a small room in a neighborhood of Otavalo, a self-proclaimed “curador” treated patients with a mixture of massage, manipulation of limbs, “secret” salves, and a muscle vibrator. A human skeletal chart hung on one wall, while images of the Virgin Mary adorned the opposite wall. He spoke in Spanish and Kichwa with patients who came to see him for bone and muscle injuries. He talked with one patient about the hardships of life as a poor farmer. With another, he talked enthusiastically about dancing in the upcoming Inti Raymi festival. With a young man injured in a soccer game, he stressed the need to avoid garlic, avocado, and “trago” (alcohol). Knees, ankles, and shoulders were pulled, twisted, and massaged, then rubbed with salve and wrapped in toilet paper, strips of the El Norte newspaper, and cloth. The cost was \$10 for a first visit, and \$5 for a follow-up. Patients in the waiting room indicated they tried doctors and their “bags of pills,” but no one could heal like Don Pedro.
- in a focus-group discussion, indigenous women of La Calera, about 20 minutes from Otavalo, recalled bad birth experiences in the public hospital in nearby Cotacachi. It was “horrible, awful” said Flora. “It was a barbarity,” said Inez. “They threw away the placenta. They weaken us, and steal our blood.” Magdalena remarked that indigenous women for years had given birth with the help of *parteras* (midwives). “Why don’t they (doctors) recognize the work of the *parteras*?”
- in the Hospital San Luis de Otavalo, the center of a pilot project in intercultural health, indigenous midwife Mama Rosa referred to her desired relationship with doctors by using the Kichwa concept of “randi randi,” or reciprocity. She said this meant a mutually respectful exchange of knowledge and information. But in general *parteras*, and indigenous methods of vertical birth, are excluded from options available to women in Ecuador’s

clinics and hospitals. The ideal standard for intercultural health is often more of an aspiration than a realization (see (Herrera, Hutchins et al. 2019)).

Conclusion

Comprehensive ethnomedical knowledge is important in any illness outbreak, but especially so during an epidemic or pandemic crisis. With regard to infectious disease, medical anthropologists aim for a biocultural synthesis of disease factors (Goodman and Leatherman 1998). An understanding of the roles of, and reasons for, natural medicines should be part of this synthesis. In a clinical setting, this information might point to effective therapeutic options, or potential negative interactions between natural medicines and other treatments. In the larger sociocultural context, knowledge of – and respect for – alternative healing techniques is a step toward real intercultural health. The study discussed here provides information about the use of natural medicines in a particular area of Ecuador, during a unique historical moment that involves a widespread infectious agent. But in a larger sense it is a window onto therapeutic preferences in a culturally complex society that includes a significant number of poor people. It contributes to data about medical pluralism, and suggests directions for future research in intercultural health.

Bibliography

Chrisman, N. J. and A. Kleinman (1983). Popular health, social networks, and cultural meanings: the orientation of medical anthropology. Handbook of Health, Health Care, and Health Professions, D. Mechanic, Free Press: 569-590.

Ecuador, T. (2015). "Comunas tsáchilas." Retrieved 11/11, 2020, from <http://tsachilas.com/>.

Finerman, R. and R. Sackett (2003). "Using Home Gardens to Decipher Health and Healing in the Andes." Medical Anthropology Quarterly 17(4): 459-482.

Fuzimoto, A. D. and C. Isidoro (2020). "The antiviral and coronavirus-host protein pathways inhibiting properties of herbs and natural compounds - Additional weapons in the fight against the COVID-19 pandemic?" J Tradit Complement Med 10(4): 405-419.

Ganguly, S. and S. Bakhshi (2020). "Traditional and complementary medicine during COVID-19 pandemic." Phytotherapy Research n/a(n/a).

Goodman, A. H. and T. L. Leatherman, Eds. (1998). Building a New Biocultural Synthesis Political-Economic Perspectives on Human Biology, University of Michigan Press.

Herrera, D., et al. (2019). "Intercultural health in Ecuador: an asymmetrical and incomplete project." Anthropology & Medicine 26(3): 328-344.

knoema (2020). "Santo Domingo de los Tsachilas - Population." Retrieved 11/11, 2020, from <https://knoema.com/atlas/Ecuador/Santo-Domingo-de-los-Tsachilas/Population#:~:text=In%202019%2C%20population%20for%20Santo,los%20Tsachilas%20was%20450%2C694%20pers>

León Cabrera, J. M. and A. Kurmanav (2020). Ecuador's Death Toll During Outbreak Is Among the Worst in the World. New York Times. New York.

Leslie, C., Ed. (1976). Asian medical systems : a comparative study, Berkeley : University of California Press, [1976] ©1976.

Leslie, C. (1980). "Medical pluralism in world perspective [1]." Social Science & Medicine. Part B: Medical Anthropology 14(4): 191-195.

Luque, J. S. (2007). "Healthcare Choices and Acute Respiratory Infection: A Rural Ecuadorian Case Study." Human Organization 66(3): 282-291.

Mignone, J., et al. (2007). "Best practices in intercultural health: five case studies in Latin America." Journal of Ethnobiology and Ethnomedicine 3(1): 31-undefined.

Miles, A. and T. Leatherman (2003). Perspectives on medical anthropology in the Andes. Medical pluralism in the Andes. J. Koss-Chiokino, T. Leatherman and C. Greenway. London ; New York, Routledge: 3-15.

Olsen, W. C. and C. Sargent, Eds. (2017). African Medical Pluralism. Bloomington, Indiana University Press.

Organization, P. A. H. (2020). "Cumulative confirmed and probable COVID-19 cases reported by Countries and Territories in the Region of the Americas." PAHO Health Emergencies. Retrieved 11/11/2020, 2020, from <https://ais.paho.org/phis/viz/COVID19Table.asp>.

Pedersen, D. and C. Coloma (1983). "Traditional medicine in Ecuador: The structure of the non-formal health systems." Social Science & Medicine 17(17): 1249-1255.

Rios, M., et al. (2017). "'Horchata' drink in Southern Ecuador: medicinal plants and people's wellbeing." Journal of Ethnobiology and Ethnomedicine **13**(1): 18.

Tinitana, F., et al. (2016). "Medicinal plants sold at traditional markets in southern Ecuador." Journal of Ethnobiology and Ethnomedicine **12**(1): 29.

Torri, M. C. (2013). "Perceptions and uses of plants for reproductive health among traditional midwives in Ecuador: moving towards intercultural pharmacological practices." Midwifery **29**(7): 809-817.