Cultural Preservation of Ethnomedicine in Perú

Lorena Álvarez, Kiana Ringuette, Sandra García-Hernández | Linfield College

Background

Minority Health & Health Disparities International Research Training Program (MHIRT-Perú) was funded by NIH in 2002, since then the Perú Ethnomedical Project in Trujillo has been an ongoing research both in the ethno-botanical and biochemical field. The summer 2015 Ethnomedical Project completed by MHIRT and supported by Linfield College focused on the usage of medicinal plants in northern Perú. Interviews were conducted in the coastal city of Trujillo, which has a population of around 800,000. The city has six districts: the urban core (Moche), las Delicias on the littoral, la Curva on the Panamerican Highway, an agricultural periphery (la Campiña), and two peri-urban sectors inhabited by migrants from the sierra (the older Alto Moche I and the more recent Alto Moche II, both also designated Miramar). The research was done on the urban core of Moche and the more rural sector of Miramar. The data collection of the commonly used plants was used to restore the garden in the Chan Chan archaeological site museum (Fajardo, Sours, 2012).



Traditional medicine—including the use of medicinal plants—is defined by the World Health Organization as "the knowledge, skills and practices based on the theories, beliefs and experiences indigenous to different cultures, used in the maintenance of health and in the prevention, diagnosis, improvement or treatment of physical and mental illness" (World Health Organization 1999, 2002).

Purpose

- Preserve the knowledge of these practices
- Analyze the plant properties
- Publish the information
- Provide the community with a garden
- Bring back and apply this in the Linfield community



Hypothesis

High cost of pharmaceuticals draws people toward using traditional use of medicinal plants. Recent migrants to peripheral areas are maintaining sierra traditions (Bussmann, Sharon, 2007).

Methods

MHIRT Traditional Medicine Project Sommer 2015 Moche and Alto Moche, Perúion Precept: y soy un estudiante de o en cooperación con la Universidad Nacional de Trujillo. Estoy realizando para un estudio sobre el uso y conocimiento de plantes hierbas medicinales y de farmacia. Quisiera saber si usted tiene aproximadamente 20 minutos para s encaests. Yo voy a leer la encuesta a usted en voz alta y anotar ens represtava a recibir un beneficio directo para participar en anestra encuesta, pero su tión avadará en arapliar los servicios de salud tráblica en su comunidad resta no va resta no va Surveys

istrumen

ipación es

pregania (praede con

 Oral surveys of medicinal knowledge Collection of descriptive and qualitative data Chi-Square tests to

compare knowledge and preference for treatment



Results/Conclusion

Peru's Geography and Climate,





Medicinal plant demonstration arden at the Chan Chan archaeological site museum

 Information published in Medicinal Garden Brochure and database

(Bernard 2006, Burnard et al. al.2008) (Brod et al. 2009) (Revene at al. 2008)

- No statistical significance between the preference in medicinal plants and location
- Deeply rooted practice of plant medicine in Perú • In Moche, 49% of the participants preferred medicinal plants over pharmaceuticals, compared to 41.6% in Alto Moche
- 90% or higher for both communities' belief in culturally bound illnesses
- 81% in Alto Moche and 66% in Moche-- Parents more knowledgeable about traditional medicine

Our descriptive and qualitative data analyzed through a Chi-Square test resulted in a no statistical significance between the preference in medicinal plants and location. In Moche, 49% of the participants preferred medicinal plants over pharmaceuticals, compared to 41.6% in Alto Moche. While 90% or higher of the participating population for both communities believed in culturally bound illnesses. Our questionnaire regarding the continuous intergenerational knowledge and use of medicinal plants demonstrated that 81% in Alto Moche and 66% in Moche confirmed that parents were more knowledgeable about traditional medicine.

Through our experience working with medicinal plants in Perú, we were motivated and inspired to implement that idea here in the Linfield Garden. The sustainability department granted support to begin the medicinal garden and begin connecting individuals to natural healing resources.

Medicinal Garden

The other part of the research project was restoration of the medicinal plant garden in the Chan Chan archaeological site museum. In the summer of 2010, the implementation of a medicinal plant garden in the Chan Chan archaeological site was established by two Linfield students for educational purposes on a previous summer faculty-student collaborative research project. Through a series of surveys conducted in the summer of 2015, the most commonly used medicinal plants in Moche were identified. The demonstration garden reflects that diversity of plants, and is meant to serve as an educational model to teach people about the medicinal and cultural components of each species.



Garden Restoration

Echinopsis pachano



Family: Cactaceae Uses: ulcers, as a hallucinogen during rituals to enhance vision, wounds caused by sorcery, inflammation, acne and for hair washing

Ruta graveolens



Family: Rutaceae Uses: Abortion. good luck, success fright, heart. menstrual regulation, depression, rheumatism, nerves nausea, aphrodisiac



Family: Plantaginaceae Uses: Hemorrhoids. benign skin tumors, vaginal cleansing wounds, blood purification, inflammation, liver, kidneys, arthritis, sprains, respiratory problems



Plantago major

Carica papaya



Family: Caricaceae Uses: Stomach parasites, laxative, anti-venom, reverse poison effects, inflammation of the liver

(Bussmann, Sharon, 2007)







Bernard H: Research methods in anthropology: Qualitative and quantitative approaches. Fourth edition. Altamira Press; 2006. Brod M, Tesler LE, Christensen TL: Qualitative research and content validity: developing best practices based on science and experience. Qual Life Res. 18(9): 1263-1278; 2009. Burnard R, Gill P, Stewart K, Treasure E, Chadwick B: Analyzing and presenting qualitative data. British dental journal 204(8):429-432; 2008 Bussmann RW, Sharon D: *Plants of the four winds: The magic and medicinal flora of Peru—Plantas de los cuatro vientos: Flora mágica y medicinal del Perú.* Graficart, Trujillo; 2007. Bussmann RW, Sharon D, Lopez A: Blending Traditional and Western Medicine: Medicinal plant use among patients at Clínica Anticona in El Porvenir, Peru. *Ethnobotany Research & Applications* 5:185-Bussmann RW, Sharon D, Vandebroek I, Jones A, Revene Z: Health for sale: the medicinal plant markets in Trujillo and Chiclayo, Northern Peru. Journal of Ethnobiology and Ethnomedicine 3:37:1-9/VII/i-xvi[·] 200

Fajardo S, Sours A: Patient Surveys at EsSalud's Complementary Medicine Clinic in Trujillo, Peru. MHIRT-Peru; 2012. Peru's Geography and Climate. Peru Travel. Promperu, 2016. Revene Z, Bussmann R, Sharon, D: From Sierra to Coast: Tracing the supply of medicinal plants in Northern Peru – A plant collector's tale. *Ethnobotany Research & Applications* 6:15-22; 2008. World Health Organization: Consultation Meeting on Traditional Medicine and Modern *Medicine: Harmonizing the Two Approaches*. World Health Organization, Geneva. (document reference (WP)TM/ICP/TM/001/RB/98-RS/99/GE/32(CHN)): 1999. World Health Organization: WHO Traditional Medicine Strategy 2002–2005. World Health Organization, Geneva: 2002.





We would like to recognize the contribution from the community of Trujillo, Perú for allowing us to complete this project. We are thankful to those who participated in our interviews, it was through them that we were able to collect data and restore the garden. We are also thankful for our colleagues who collaborated in conducting the survey: Marisa Álvarez, Shant Tamazian, and Javier Blanco. We are especially thankful to Carolina Tellez and Manuel Bejarano for guidance and support throughout the research. Lastly, we would like to thank our director of MHIRT-Peru, Douglas Sharon as well as Thomas Love and Linfield College for their support in the faculty-student collaborative research program.



Publication

A brochure was created to guide tourists and locals through the garden. The brochure includes the following information for each plant species in the garden: common name, scientific name, origin, and

References

Sponsors

Acknowledgements