

Globalization, cultural values, and ethnobotanical knowledge among a Maya society

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Summary

This research examines cultural knowledge distribution to identify risks and preservation strategies for plant-related medical knowledge in two Maya communities of varying urbanization in southern Mexico. By assessing within- and between-group differences in cultural knowledge and values we can better understand and preserve endangered ethnobotanical knowledge and shed light on the impacts of urbanization and globalization on cultural traditions. The Maya area is an ideal place for this investigation because millions of people maintain centuries-long plant-use traditions, yet globalization is transforming rural life-ways.

Introduction

Scholars and laypeople worry that traditional societies' environmental knowledge is diminishing with increasing globalization [1,2]. In nonindustrial societies, ethnobotanical knowledge—how people interact with and use plants (e.g. for food, shelter, medicine)—is still crucial to human survival [3,4]. Various factors affect preservation of ethnobotanical knowledge and the field of ethnobotanical medical traditions is widely studied [5-9]. But questions such as *Do people who most value their culture also better preserve ethnobotanical medical traditions?* are still academically unanswered. Evidence suggests positive associations between individuals' attachment to traditional beliefs and values and ethnobotanical knowledge [10,11], but direct study is needed.

In southern Mexico, Chiapas is the second-most impoverished of the Mexican states yet rich in agricultural land, natural resources, and indigenous cultures [12]. Amidst globalizing forces—urbanization, consumerism, and migration—indigenous societies maintain botanical knowledge as best they can [13]. Still, people change their diets and health care behavior to adopt foreign foods and medicines that often harm individuals' health and communities' conservation of local traditions and cultural identity [14,15]. These changes leave vulnerable the traditional knowledge of plants and the life-ways of people who hold this knowledge. This project aims to understand the forces guiding ethnobotanical knowledge preservation or change across rural/urban differences and to characterize current ethnobotanical traditions for continued use and benefit by local people.



Rural farmers stand with me in their corn field, Chiapas, Mexico. Source: A. Thiel.



Source: www.lapoliciaapolitica.com



Montebello Lake, Chiapas, Mexico. Source: A. Thiel.

Study Area

This research is situated in two Tojolabal Mayan communities (Las Margaritas and Antela) in the municipality of Las Margaritas, in Chiapas, Mexico (see map above). The town of Las Margaritas (population 20,000) is a commercial and administrative hub. The village of Antela (population 650) is mainly horticultural, producing crops for household subsistence, and is the site of my previous research. Chiapas is one of the most culturally and biologically diverse states in Mexico [12].

Research Question and Hypotheses

Research question:

How do cultural values affect ethnobotanical medical knowledge and practice across rural/urban differences?

Specific hypotheses:

- ◆ *The degree to which individuals rate pressure to adhere to cultural norms and values (cultural tightness) will be higher in the rural village and lower in the peri-urban community.*
- ◆ *On average, village members will know more total medicinal plants than peri-urban community members.*
- ◆ *We expect a positive association between perceived cultural tightness and medicinal plant knowledge, regardless of community.*

Methodology

Per anthropological tradition, participant observation (engaging in all aspects of public community life) will provide the ethnographic foundation and context for findings achieved through other methods [16]. Methods include:

- ◆ Participant observation
- ◆ Informal and semi-structured key informant interviews with local cultural experts
- ◆ Surveys and freelist tasks with at least 60 adults in each community [17, 18]
- ◆ Focus group interviews to study local models of illness and treatments
- ◆ Botanical voucher (pressed plant) deposit in a local herbarium to verify species

We will conduct P-O and interviews in Spanish, since it is the preferred language according to pilot research informants. We will follow ethical guidelines outlined by the International Society of Ethnobiology and local customs. WSU's Institutional Review Board approved this research.

Expected Results

This research explores the variation in cultural values and knowledge across rural and peri-urban farming communities to understand how cultural values effect ethnobotanical medical knowledge. Results will contribute to a growing common metric to evaluate ethnobotanical knowledge between cultures [3,18]. To analyze data collected in the field, we will

- ◆ Identify themes from interview transcripts and focus group results to characterize health, healing, and cultural values
- ◆ Calculate Cognitive Sharing and Diversity [18]—that is, the degree of similarity of content of all respondent lists—about cultural values and ethnobotanical knowledge
- ◆ Explore the relationship of demographic variables with cultural values and ethnobotanical knowledge within and between both communities

We expect less acculturative pressure in the rural community, and greater adherence to cultural identity through tighter social norms, which we expect to link to greater ethnobotanical knowledge.

Significance

By assessing the relationship between ethnobotanical knowledge and cultural values, my research will contribute to scientific understandings of the cognition of culture change and the preservation of endangered ethnobotanical knowledge. After field work, my research team will analyze results and compile short booklets of medicinal plant use, for local distribution, use, and benefit, highlighting and aiding revitalization efforts for traditional medicine in the face of globalization and traditional knowledge loss. I will also disseminate results via several scholarly and non-academic local platforms, including short videos documenting ethnobotanical information, as well as through local radio, which is an accessible format for this largely illiterate population. Successful efforts for ethnobotanical knowledge preservation in southern Mexico may serve as models for regional and international efforts to create culturally appropriate public health initiatives and biological and cultural conservation programs more broadly.

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Notes

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