

Use of Complementary Alternative Medicine in the Largest Mexican-American Border City

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CAM Background

- Herbalgram 1997 – 60 million Americans use herbs accounting for \$3.24 billion in sales.
- Herbal products are not approved by FDA.
- Dietary Supplement Health and Education Act of 1994 allows products to be labeled with certain statements (could say help, but not cure).
- NEJM 1993 - Approximately 25% of Americans are using CAM. 70% of CAM users do not tell their physicians (only 6% of participants were Hispanics).

CAM Background

- JAMA 1998 – Most common CAM: Relaxation techniques, 16.3%; Herbal products, 12.1%; Massage, 11.1%; Chiropractic, 11%; Spiritual healing, 7%; Megavitamins, 5.5%; (Folk remedies, 4%).
- J.Hol.Nurs. 1996 – Most common CAM among Mexican-Americans: Herbal medicine, 44.1%; Spiritual healing, 29.5%; Massage, 28.3%; Relaxation techniques, 22.5%; Chiropractic, 19%; *Curandero (Healer)*, 13.6%; and Megavitamins, 8.6%.

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Objectives

To identify:

- Most common Complementary and Alternative Medicine (CAM) providers used in the region.
- Most common herbal products and home remedies used.
- Most common nutritional and commercial products used.
- Herbal products, home remedies, nutritional and commercial products that:
 - Could interact with drugs.
 - Could interact with disease states.
 - Could cause serious adverse reactions.

Primary endpoints of study

- To determine the extent of CAM use in the El Paso del Norte region
- To identify the most common types of CAM used in our region

Secondary endpoints of study

- To determine patterns of CAM use in the El Paso del Norte region
- To compare participants perceptions of conventional and CAM providers
- To highlight the importance of conducting more complete medical histories
- To establish possible herbal-drug, herbal-disease interactions, and herbal toxicity

Questionnaire

- Three different categories of CAM
 - CAM providers
 - Herbal products and home remedies
 - Nutritional and commercial products
- Where did they learn of, where did they obtain products/services, how effective, did they inform physician?

Questionnaire

- Participants perceptions of conventional and CAM providers: cost, ethnicity, Spanish language, provider skills, distance, helping to understand, information provided, attitude toward questions, meeting emotional needs, and including participant in decisions
- Demographic information
- Surgery during the previous 12 months
- Purchase of medications in México

Results

- A total of 547 subjects participated in the study
- 77% of our sample reported using some form of CAM

Results

- 48% of participants reported using a CAM provider
- 59% of participants reported using an herbal product or home remedy
- 76% of participants reported using a nutritional or commercial product

CAM Providers

■ Massage Therapist (<i>Sobador</i>)	19.4%
■ Herbalist (<i>Yerberero</i>)	12.4%
■ Chiropractor	11.8%
■ Lifestyle Diet	7.8%
■ Acupuncture	6.8%
■ Naturalist	6.6%
■ Meditation	6.2%

Where did you learn about this?

■ Friend	48%
■ Family	40%
■ Doctor	8%
■ Book	4%
■ Advertisement	1%

Most Common Herbal Products

■ Chamomile	13.1%
■ Aloe Vera	8.5%
■ Peppermint	8.1%
■ Lime	6.6%
■ Garlic	6.4%
■ Oregano	5.1%



Tarahumar women selling herbs in Juarez, Mexico



Herb stand in Juarez, Mexico



Popular herbal products sold in El Paso, Texas

How did you learn?

■ Family	83%
■ Friend	11%
■ Book	5%
■ Advertisement	1%
■ Doctor	1%

Did you tell your doctor?

■ Yes	31%
■ No	69%

Nutritional and Commercial Products

■ Multi-vitamins	15.9%
■ Calcium	15.6%
■ Vit.C	8.6%
■ Iron	8.5%
■ Vit. & minerals	6.5%
■ Vit.E	6.4%
■ Vit.B12	5.2%

How did you learn?

■ Family	16.8%
■ Friend	27.3%
■ Advertisement	31.9%
■ Book	9.8%
■ Doctor	15.6%

Home remedies that have been known to cause negative outcomes

- Lead-based products such as azarcon, greta, and albayalde (all used for *empacho*) have been associated with acute and chronic lead toxicity.
- Gordolobo and chaparral, used for respiratory and gastrointestinal problems, have been associated with liver injury.

Herbal Products that have been Associated with Drug Interactions.

- Garlic
- Ginger
- Ginseng
- Ginkgo biloba
- Glucosamine
- Mahuang
- St. John's Wort

Herbal and Commercial Products that have been Associated with Adverse Reactions.

- Mullein (gordolobo)
- Chaparral (gobernadora)
- Rue (ruda)
- Peyote
- Wormwood (estafiate)
- Echinacea

Herbal and Commercial Products that have been Associated with Disease State Interactions.

- Garlic
- Ginger
- Ginseng
- Ginkgo Biloba
- Glucosamine
- Mahuang
- St John's Wort

Do you buy drugs in Mexico?

■ Yes	50.6%
■ No	49.4%



Pharmacy in Juarez, popular with U. S. tourists

Patients who had surgery (N=50)

Herb	Number	Percent
Garlic	10	20%
St. John's Wort	1	2%
Ginger	1	2%
Total	12	24%

ASA Recommendations Concerning Herbal Products

- All herbal products should be stopped 2-3 weeks before surgery.
- St. John's wort can intensify or prolong the effects of some narcotic drugs and anesthetic agents.
- Ginkgo biloba and feverfew can interfere with blood clotting.
- Ginseng has been associated with episodes of hypertension and tachycardia.

Additional findings

- Education was associated with CAM use.
 - More education was associated with increased overall CAM use and nutritional and commercial product use.
 - Less education was associated with increased use of herbal products and home remedies.
- No other demographic variable was associated with CAM use.

Income and cumulative %

■ Less than 10,000	25%
■ 11,000 to 20,000	50%
■ 21,000 to 30,000	68%
■ 31,000 to 40,000	78%
■ 41,000 to 50,000	87%
■ 51,000 to 60,000	92%

Additional findings

- Identified 599 instances of potential drug interactions, disease interactions, or adverse reactions secondary to herbal product use.

Our Study Has Shown....

- Wide range of CAM use
- Mexican-Americans appear to have a higher usage rate of CAM as compared to national trends
- Education was the only demographic variable associated with CAM use

Furthermore...

- Patients are most influenced by friends in terms of CAM providers.
- Patients are most influenced by family members in terms of herbal product use.
- Patients are most influenced by books when using commercial and nutritional products.

Conclusion

Since many of the herbal products used can have significant effects on different disease states and drug therapies, it is imperative that health care providers evaluate patients for herbal product use.

Herbal Product Use Initiative

■ Additional research initiatives:

- Surgical patients
- Herbal product providers
- General population of El Paso and Cd. Juárez

■ Extensive educational programs

(presentations, publications, web site, etc.):

- Health care providers
- General population

Questions?