

Religiosity and Utilization of Complementary and Alternative Medicine Among Hispanic Patients

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Background

- 38% of all adults used some type of CAM in the past 12 months.
 - Hispanics (24%)
 - American Indian/Alaska Natives (50%)
 - Non-Hispanic whites (43%)
 - Non-Hispanic Asians (26%)
 - Non-Hispanic blacks (24%).
- CAM by therapy category: Biologically based therapies (19.9%), mind-body therapies (19.2%), manipulative and body-based therapies (15.2%), alternative medical systems (3.4%), and energy healing therapy (0.5%).

Background

- Traditional healers and CAM
- Mainstream CAM and traditional CAM.
- Prayer as a CAM practice inflates estimates of CAM utilization.
- Mainstream CAM: massage therapy, chiropractics, energy healing, megavitamins, homeopathy and acupuncture
- Traditional CAM: herbal therapies, traditional home remedies, folk massage therapies, use of traditional healers, psychics and folk healers.

Purpose

The purpose of this study was to test the relationship between religiosity and usage of CAM in a sample of Hispanic adults. It was expected that increased religiosity would lead to an increase in CAM usage.

Method: Sample

- n=306
- Location of birth:
 - Mexico (56.3%)
 - South America (24.6%)
 - Central America (7.4%)
- Gender: 66.8% Female, 33.2% male
- Mean age was 39.6 (SD = 13.2) (range = 18 – 79)

Method: Measures

- Self-administered survey (Spanish/English)
- DV
 - **Mainstream CAM (7 items):** massage therapy, aromatherapy, chiropractic, energy healing, megavitamins, homeopathy and acupuncture. C.a. = .77
 - **Traditional CAM (6 items):** herbal therapies, home remedies, spiritual healer, psychic and folk healer. C.a. = .70
 - **Total CAM (Sum of Traditional and Mainstream CAM)**
 - Each construct was based on the question, "How frequently do you use [particular CAM therapy]: never (0), every 10 years (1), every 5 years (2), every year (3), every 6 months (4) or every month (5)?"
- IV
 - **Measure of Religiosity (Rohrbaugh and Jessor, 1975):** eight questions representing four domains: ritual, consequential, ideological, experimental (sum value 0-32) C.a. = .78
 - Other measures included age, gender, annual income, home ownership, country of birth, and employment status.

Method: Analysis

- ANOVA test statistics were calculated to compare means of mainstream, traditional, and total CAM usage across key demographic characteristics.
- Multiple linear regression analysis was used to test the association between religiosity and CAM usage, after controlling for potentially confounding influences of age, gender, and income.
- Controlled for income by choosing a population which patronized a free community clinic. Home ownership was a variable used in regression models.

Table 1 Descriptive Statistics for the Study Sample (N=385)

Age		Region of Birth Country	
18-29	24.3% (98)	South America	24.3% (73)
30-39	23.6% (95)	Mexico	21.6% (158)
40-49	19.1% (77)	Central America	5.6% (17)
50-64	16.6% (67)	Other	2.6% (8)
65+	3.7% (14)	Did not answer	8.2% (25)
Did not answer	12.9% (52)		
Income		Employment Status	
<\$10,000	28.4% (117)	Working with salary	34.6% (133)
\$10,000-\$19,000	25.8% (100)	Self-employed	6.5% (25)
\$20,000-\$29,000	17.6% (64)	Unemployed for >1 year	5.9% (18)
\$30,000-\$39,000	7.2% (22)	Unemployed for <1 year	14.7% (45)
\$40,000-\$49,000	1.6% (5)	Homeowner	24.2% (74)
\$50,000-\$59,000	0.7% (2)	Student	8.9% (21)
\$60,000-\$69,000	0.3% (1)	Retired	1.0% (3)
>\$70,000	0.3% (1)	Disability	2.9% (9)
Did not answer	18.0% (55)	Did not answer	3.3% (10)
Sex		Marriage Status	
Male	33.0% (101)	Single	32.7% (100)
Female	67.0% (205)	Married	64.4% (197)
		Did not answer	2.9% (9)
Home Ownership		Time Since Last Medical Consult	
Owens home	16.3% (50)	<1 month	18.1% (77)
Renters	89.4% (280)	1-6 months	38.9% (153)
Did not answer	3.3% (10)	6-12 months	15.6% (65)
		1-5 years	17.4% (70)
		5+ years	6.9% (28)
		Did not answer	3.5% (14)
Religiosity			
Mean (SD)	21.8 (5.8)		

Table 2 Utilization of CAM Therapies (N=306)

	Usage	
	%	N
Herbal therapies	35.1	102
Home remedies	64.1	180
Traditional massage	24.2	69
Espiritualista	5.2	15
Vidiente media	0.8	2
Curandero	1.3	4
Traditional massage therapy	11.9	32
Aromatherapy	10.2	28
Chiropractor	19.7	54
Energy healing	1.9	5
Megavitamins	20.4	56
Homeopathy	13.7	38
Acupuncture	4.7	13

Table 3 Associations Between CAM Therapies and Demographic Characteristics (N=306)

Region of Birth	CAM Type		Total
	Mainstream	Traditional	
South America	X		X
Mexico			
Central America			
Female		X	X
Home owner	X		X

Note: One-way analysis of variance was used to test for significance of CAM therapies; values that were significantly higher at $p < .05$ are indicated with an X.

Table 4 Factors Associated with CAM Therapies (N=242)

Predictor	Traditional CAM			Mainstream CAM			Total CAM		
	B	SE	β	B	SE	β	B	SE	β
Religiosity	0.105	0.051	0.134*	0.017	0.007	0.158*	0.032	0.009	0.219***
Age	0.674	0.251	0.173**	0.031	0.036	0.058	0.061	0.047	0.083
Female	0.944	0.627	0.096	0.055	0.088	0.041	0.159	0.117	0.086
Home owner	-1.083	0.783	-0.088	-0.039	0.110	-0.023	-0.123	0.147	-0.073
Constant	4.779	2.261	-	2.584	-	0.416	0.015	0.296	-

Note: * = $p < .05$, ** = $p < .01$, *** = $p < .001$; R² for Traditional CAM model = 7.7%, Mainstream CAM model = 3.6%, and Total CAM model = 8.2%.

Limitations

- Measure relied on previous research for determining CAM therapies rather than a previously attained consensus of CAM therapies and techniques.
- While we have no evidence to believe that participants didn't understand the significance of each CAM technique, we were unable to determine the participants understanding of each intended CAM technique and what it might infer.
- Acculturation
- Homogeneous religious population

Discussion/Conclusion

- The multivariate regression model in this study found increased religiosity to be associated with utilization of all three forms of CAM.
 - Controlled income by choosing a low income population.
 - Used Rohrbaugh and Jessor's (1975) eight-question scale.
- South American CAM vs. Central America and Mexico CAM do not contradict NHIS statistics.
- Consistent with NHIS findings, age was significantly related to traditional CAM usage. (highest among those ages 30-69)
- Consistent with NHIS findings, females have higher use rates than males with regard to traditional CAM although this finding was not observed in the multivariate analysis.
- One key to understanding this relationship will be further agreement among social scientists and CAM experts as to which particular therapies constitute the various forms of CAM.

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