Complementary and Alternative Medicine and Immigrant Assimilation

Introduction

The latest evidence points to a substantial increase in the use of Complementary and Alternative Medicine (CAM) in the 1990's (Barnes et al. 2004). The 2002 National Health Interview Survey (NHIS) revealed that 75% of adults have tried some form of CAM (including prayer for health reasons). The use of CAM has even been described as a social movement "because of the number of people identifying as activists and the collective impact they are achieving" (Goldner 2004).

Yet, the National Center for Complementary and Alternative Medicine (NCCAM) asserts that there is a shortage of data on the use and outcomes of CAM among racial and ethnic minority populations (NCCAM 2003). Racial and ethnic minorities alongside immigrants are arguably the most important populations to study in the U.S. for the following reasons: *1) Immigrant populations are growing rapidly.* Hispanic and Asian groups are the two fastest growing minority populations in the U.S. In fact, the 2000 Census revealed that about one in 9 persons in the U.S. is an immigrant (Jasso et. al 2004). *2) Immigrants tend to have better health and mortality rates than the native population. Further, in some cases, the health and mortality of first and higher order migrant generations converges toward the native patterns* (Lee and Palloni 2004).

While some scholars have concluded that race and ethnicity are not related to CAM use (Astin 2000), the most recent studies uphold that there is a relationship between the two (Barnes et al. 2004). In fact, analysis of the 2002 NHIS survey revealed an unprecedented trend: Asian adults are substantial CAM users (Barnes et al. 2004).

The increasing prevalence of CAM use among ethnic minorities begs the question, "Does CAM use vary between foreign-born and native-born residents of the U.S.? If so, is immigrants' length of residence in the U.S. also related to CAM use?" This study will attempt to answer the previous questions.

Background

Explanations of CAM use

Scholars have tried to determine the characteristics of CAM users for decades. Recently it has been argued that those with a high socio-economic status and high

education tend to use CAM more frequently (Kelner and Wellman 1997; Astin 1998). Others have relied on complex models to describe the health behaviors of CAM users (Astin 2000; Jauregui 2003). Some models address the need, predisposing and enabling factors for health service use (Andersen's Socio-Behavioural Model). Still other models focus on networks (Pescosolido's Network-Episode Model).

One area that has not been frequently studied is that of immigrants and CAM use, particularly the role of assimilation in CAM use. Immigrants may provide valuable insight into the study of CAM because many therapies that are classified as "CAM" in the U.S. are used on a national level in a number of other countries. For example, China uses traditional medicine (TCM) alongside conventional; India's health system incorporates Ayurveda; Japan's national insurance covers Kampo (Barnes et al. 2004). In Mexico, a prevalent type of care is the use of curanderos.

Thus, upon arrival in the U.S., these immigrants may be more likely to use CAM because of exposure or use of these modalities in their native countries.

Assimilation and CAM

Singh-Manoux and Marmot assert, "health-related and psychosocial behaviours are never truly 'voluntary'," (2005: 2). Indeed, health-related actions can be seen as a complex of a number of factors; an important one of those is culture. Hence, an immigrant's changing patterns of health behavior can be due to acculturation or assimilation.

Despite criticism from some scholars (Glazer 1997), assimilation theory (which encompasses acculturation) is still upheld as a very significant contributor to past migration research and as having much utility in studying today's immigrants to the U.S. (Alba and Nee 1999). It has been visited and revisited and has-- although many caveats and revisions have been added-- withstood the test of time. It can examine the incorporation of new immigrants as well as old, and is useful in explaining many aspects of immigrant life, including health.

Singh and Siahpush assert that there has not been extensive research on the impact of immigrant status on health and that it is unclear what happens to health of immigrants as they try to assimilate into the U.S. culture (2002). They ask, "Does their health deteriorate as they adopt the unfavorable behavioral patterns of their U.S.-born

counterparts and experience greater social discrimination, lack of health care coverage, and lower levels of social and familial support?" (2002:2).

Some research shows that there is a tendency among immigrant groups to assimilate to the health and risk behaviors of natives over time.

Palloni and Arias discuss assimilation in the context of health:

> "Mortality rates for migrants and nonmigrants may become increasingly similar because the former group progressively adopts a more adverse profile of risk exposure—shaped by social, cultural, and behavioral factors—that resembles that of the nonmigrant population. Assimilation implies the jettisoning of favorable traits and the adoption of new ones in a trade-off with negative net health benefits for the migrant population in the following sense: had migrants preserved the original traits, their mortality levels would remain below those of the nonmigrant population," (Palloni and Arias 2004: 399).

If health and risk behaviors are directly impacted by assimilation, then it is very likely that the same is true for help-seeking behaviors (like CAM use). Yet, there has not been sufficient research on immigrants, CAM use, and assimilation.

Since immigrants may be more likely users of CAM than natives upon arrival in the U.S. (because of CAM use in their native countries), assimilation may play a key role in their CAM use as they begin to assimilate into U.S. society. As the immigrants begin to adapt to the new society and culture of the U.S., they take on the help-seeking behavior of the natives, which traditionally has been characterized by a use of conventional medicine. Thus, it is possible that with time spent in the U.S., immigrants' likelihood of CAM use may decrease.

Summary of Key Hypothesis

In this study, I will test the assimilation hypothesis in order to determine whether assimilation influences the reasons for and patterns of CAM use among immigrants.

Assimilation Hypothesis. CAM use is affected by immigrant status (foreign-born) and length of residence in the U.S. Foreign-born individuals will be more likely to use CAM therapies than their native-born counterparts because of changing cultural values as they assimilate to American society. Moreover, those immigrants who have resided in the U.S. longer will be less likely to use CAM than more recent immigrants (usage varies with length of stay in the U.S.).

Methods

Data

The aim of this study is to analyze the effect of immigrant status on the use of CAM and to test whether acculturation plays a role in CAM use. I will be analyzing the 2002 National Health Interview Survey CAM Supplement using SPSS. The data was collected using computer-assisted personal interviews, and is a nationally-representative sample of U.S. civilian non-institutionalized adults (Barnes et al. 2004). The multi-stage complex sample design will be compensated for by including the weights which are based on design, ratio, non-response, and post-stratification adjustments.

The sample consists of 31,044 individuals, 85.8 % (N=26,624) of whom have ever tried some form of CAM. Approximately 16% of the sample is foreign-born (N= 5058), while the racial composition is as follows: Non-Hispanic White (N=20,442), Non-Hispanic Black (N=4,185), Non-Hispanic Other (N=1,144), and Hispanic (N=5,273).

Variables

The supplement addresses CAM use in-depth, including the following questions: whether an individual has ever used a specified CAM therapy (there are questions on 17 therapies in all), why they chose that therapy (with choices including—"conventional medicine is too expensive", "thought it would be interesting", "it would help in conjunction with conventional medicine"). This information will be linked to the responses for the general survey questions in the "Persons" file of the NHIS, which includes demographic characteristics like income, age, ethnicity, country of origin, insurance status, etc., as well as information about health status.

Since I will be testing whether there is an assimilation process in the use of CAM, CAM use will be analyzed as the dependent variable. It will be operationalized in two ways: the first will be a dichotomous variable—0 for having NEVER tried any CAM therapy, and 1 for having tried at least one therapy-- while the second (also dichotomous) will represent those who have used it in the past 12 months. Using logistic regression, I will be analyzing the effect of nativity and length of residence in the U.S. on CAM use (both having ever tried it and having used it in the past 12 months), while controlling for age, race, gender, income, health insurance, and self-reported health status.

Preliminary Findings

Based on preliminary analyses, it appears that immigrants are less likely than natives to have ever tried any form of CAM (See Table 1). However, when we control for characteristics that have been linked with CAM use (age, sex, race, income, health insurance, health status), that likelihood increases considerably for immigrants but still does not equal that of natives. There is also evidence acculturation does occur, but that it works in the opposite direction than hypothesized. Rather than immigrants assimilating to native use of conventional medicine, they are assimilating to native use of CAM. Thus, contrary to the hypothesis that natives are more likely to use conventional medicine, they are actually more likely than immigrants to use CAM. The likelihood of CAM use for the foreign-born increases with length of residence, and approaches that of natives after 15 or more years in the U.S. (Exp(B)=.810, p < .01, where natives are the reference category).

Subsequent analyses will delve much deeper into the research question, assessing whether there are differences between immigrant groups based on country of origin and also testing the likelihood of having tried CAM in the past 12 months.

Table 1- Logistic Regression Results: Odds Ratio

Variable	Model 1	Model 2	Model 3	Model 4
Nativity				
Foreign-born				
Less than 1year in U.S	.303***	.445***	.551***	.568***
1 year, less than 5 years	.451***	.652***	.766***	.780***
5 years, less than 10 years	.415***	.542***	.607***	.616***
10 years, less than 15 years	.570***	.741***	.780***	.785***
15 or more years in U.S.	.736***	.807***	.805***	.810***
Native U.S-born (ref.)	--	--	--	--
Age				
25 to 44 years of age		1.447***	1.243***	1.224***
45 to 64		1.922***	1.670***	1.594***
65 to 69		1.957***	1.876***	1.780***
70 to 74		2.317***	2.288***	2.170***
75 and over		1.736***	1.773***	1.659***
18 to 24 (ref.)	--	--	--	--
Sex				
Female		1.837***	1.892***	1.890***
Male (ref.)	--	--	--	--
Race				
Other		.895***	.894***	.887***
Hispanic		.696***	.782***	.774***
Black		.790***	.871***	.859***
Non-Hispanic White (ref.)	--	--	--	--
Income (Combined Family)				
$25,000 to $54,999			1.566***	1.591***
$55,000 to $74,999			1.836***	1.878***
$75,000 and above			1.909***	1.981***
0 to $25,000 (ref.)	--	--	--	--
Health Insurance				
No			.757***	.755***
Yes (ref.)	--	--	--	--
Health status				
Excellent Health				.918***
Very Good Health				1.024***
Fair Health				1.060***
Poor Reported Health				1.644***
Good Reported Health (ref.)	--	--	--	--
-2 Log Likelihood	76016464	74236757	73282911	73192857

*** Significant at the .01 level
** Significant at the .05 level
* Significant at the .1 level

References

Alba, Richard and Victor Nee. 1999. "Rethinking Assimilation Theory for a New Era of Immigration." Pp. 137-160 in *Handbook of International Migration*, edited by Charles Hirschman, Philip Kasinitz and Josh DeWind. New York: Russell Sage Foundation.

Astin, John A. 2000. "The Characteristics of CAM Users: A Complex Picture." Pp. 101-114 in *Complementary and Alternative Medicine: Challenge and Change*, edited by Merrijoy Kelner and Beverly Wellman. Amsterdam, Netherlands: Hardwood Academic Publishers.

------. 1998. "Why Patients Use Alternative Medicine: Results of a National Study". in *Journal of the American Medical Association* 279:1548-1553.

Barnes PM, Powell-Griner E, McFann K, Nahin RL. 2004. "Complementary and Alternative Medicine Use Among Adults: U.S., 2002." *Advance Data from Vital and Health Statistics*, no. 343. Hyattsville, Maryland: National Center for Health Statistics.

Kelner, Merrijoy and Beverly Wellman. 1997. "Health Care and Consumer Choice: Medical and Alternative Therapies." in *Social Science and Medicine* 45(2):203-212.

Lee, Ron and Alberto Palloni. "Population and Environment." National Institute of Child Health & Human Development, Retrieved Nov. 12, 2004 (http://www.nichd.nih.gov/about/cpr/dbs/sp/lee_palloni.htm).

Glazer, Nathan. 1997. *We Are All Multiculturalists Now*. Cambridge, Mass.: Harvard University Press.

Goldner, Melinda. 2004. "The Dynamic Interplay Between Western Medicine and the Complementary and Alternative Medicine Movement: How Activists Perceive a Range of Responses from Physicians and Hospitals." *Sociology of Health and Illness* 26 (6): 710.

Jasso, Guillermina, Douglas S. Massey, Mark R. Rosenzweig, and James P. Smith. Nd. "Immigrant Health—Selectivity and Acculturation." Paper prepared for National Academy of Science Conference on Racial and Ethnic Disparities in Health. Retrieved 03/13/05. (http://www.fundacionareces.es/PDF/new%20immhealth1.pdf).

Jauregui, Maritza. 2003. *Complementary Medicine and Healthcare in a Latino Population.* Ph.D. dissertation. Department of Social Ecology, University of California, Irvine, Irvine, CA.

National Center for Complementary and Alternative Medicine. 2003. "PAR-03-102: Secondary Analysis of Data on CAM Use in Minority Populations." Retrieved Nov 12, 2004 (http://grants.nih.gov/grants/guide/pa-files/PAR-03-102.html).

Palloni, Alberto and Elizabeth Arias. 2004. "Paradox Lost: Explaining the Hispanic Adult Mortality Advantage." in *Demography* 41(3):385-415.

Singh, Gopal K. and Mohammad Siapush. 2002. "Ethnic-Immigrant Differentials in Health Behaviors, Morbidity, and Cause-Specific Mortality in the United States: An Analysis of Two National Data Bases." *Human Biology* 74(1): 83-109.

Singh-Manoux, Archana and Michael Marmot. 2005. "Role of Socialization in Explaining Social Inequalities in Health." in *Social Science and Medicine* 60(9):2129-2133.