Acculturation and the Probability of Use of Health Services by Mexican Americans

Kenneth B. Wells, Jacqueline M. Golding, Richard L. Hough, M. Audrey Burnam, and Marvin Karno

How does level of acculturation affect the probability that Mexican Americans use general health, mental health, and human social services? We studied this question using data from a general population sample of Mexican Americans (N = 1,055). Data were elicited in face-to-face interviews. After controlling for sociodemographic and economic factors, health status, and insurance coverage, Mexican Americans who were less acculturated had significantly lower probabilities of an outpatient medical visit for physical health problems and of a visit to a mental health specialist or human service provider for emotional problems. The less acculturated with good perceived general health were especially unlikely to receive outpatient medical care. Having Medicaid coverage was associated with a larger increase in the probability of an inpatient medical admission for the more acculturated than for the less acculturated. Other individual characteristics had generally similar effects on use of medical and mental health services for both the more and the less acculturated Mexican Americans.

This research was supported by the Epidemiologic Catchment Area Program (ECA). The ECA is a series of five epidemiologic research studies performed by independent research teams in collaboration with staff of the division of Biometry and Epidemiology (DBE) of the National Institute of Mental Health (NIMH).

The work reported here was also supported by NIMH Research Scientist Development Award MH 00351 and NIMH Research Training Grant MH 14664.

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In recent years, there has been a growing interest in understanding the role of cultural factors, such as level of acculturation and migration status, in determining use of health services by Mexican and other Hispanic Americans. Hispanic Americans are heterogeneous in their cultural origins, and also in the extent to which they have adopted the cultural values and behaviors of the dominant U.S. society. Variation in the level of acculturation may affect psychological functioning and psychopathology, as well as service utilization (Olmedo and Padilla 1978; Andersen et al. 1981).

Understanding the effects of acculturation to the dominant U.S. society on service use by Mexican Americans is important for two reasons. First, the Hispanic population is currently the fastest-growing ethnic minority group, as reflected by U.S. Bureau of Census reports (1973, 1976, and 1982). It is expected to become the largest ethnic minority group in the United States by the year 2000 (Macias 1977). Hispanics of Mexican origin or descent comprise the majority of this population. Second, although the empirical evidence is mixed, Mexican Americans are commonly thought to underutilize health services, relative to need (Andersen et al. 1981; Hough, Karno, Burnam, et al. 1983; Hough et al. 1987; Vernon and Roberts 1982; Markides, Levin, and Ray 1985). Those low in acculturation may be especially unlikely to use services due to problems such as language barriers, unfamiliarity with the U.S. health care system, lack of insurance coverage, fear of deportation, and other barriers (Keefe and Casas 1978; Karno and Edgerton 1969; Philippus 1971). The combination of rapid population growth and underutilization of services could lead to a large reservoir of unmet need among Mexican Americans—particularly among the less acculturated—with major public health and financial implications.

Despite the importance of this problem, there has been no previous study of the effects of level of acculturation, controlling for health status and demographic and socioeconomic factors, on use of a comprehensive range of health services for a general population of Mexican Americans. In this article, we provide estimates of these effects, using data from the Los Angeles project of the National Institute of Mental Health (NIMH) Epidemiologic Catchment Program (LA-ECA).

THE CONCEPT OF ACCULTURATION

Acculturation refers to the psychosocial adaptation of persons from their culture of origin to a new or host cultural environment. This adaptation can include relearning the meaning of symbols and lan-

guage; incorporating new values, expectations, and beliefs; and altering customs and behaviors (Burnam et al. 1987). It can be distinguished conceptually from immigration, which is defined by mobility in terms of physical location, and from assimilation, which implies not only a change in cultural patterns but full integration into the social structure of the host society and the absence of cultural prejudice and discrimination.

In the past decade, several alternative conceptual models of acculturation have been formulated, and measures have been developed and tested that represent these models. Some measures have been based on a model for Hispanic Americans in which acculturation is viewed largely as a continuum from exclusive involvement in Hispanic culture to exclusive involvement in American culture (Szapocnik et al. 1978). Others proposed a model of "biculturism" (Mendoza 1984; Vega, Hough, and Romero 1983; Szapocnik, Kurtines, and Fernandez 1980). In this formulation, "Hispanicism," or involvement in Hispanic cultural attitudes and behaviors, is distinguished from "Americanism," or involvement in the host American attitudes and behaviors. In theory, these two dimensions are independent. Szapocznik, Kurtines, and Fernandez (1980) developed and fielded measures of each of these two constructs. The difference between Hispanicism and Americanism scales was used to represent the degree of bicultural versus monocultural orientation. Data were not presented, however, to assess the independence of the Hispanicism and Americanism dimensions.

Acculturation may also be multidimensional in another sense: level of acculturation may vary across domains of daily activities, including life roles (e.g., family versus work), social relationships, language use, and food preferences. Several groups of investigators have used factor analyses to identify such life-activity dimensions of acculturation (Olmedo and Padilla 1978; Burnam et al. 1987; Olmeda, Martinez, and Martinez 1978; Cuellar, Harris, and Jasso 1980; Padilla 1980; Ramirez 1984; Deyo, Diehl, Hazuda, et al. 1985; Montgomery and Orozco 1984). In most of these studies, the identified factors were subdimensions of a global construct. While the number and content of the identified subdimensions varied considerably across studies, the most common types of constructs were language usage; social interaction choices; other behavioral and attitudinal evidence of cultural identification, affiliation, and experience; and socioeconomic status.

Unfortunately, data have not been available to select among these three models of acculturation (unidimensional; two-cultural dimensions; life-activity domains). There is empirical support for each

model, in terms of both internal consistency of the measures and construct validity, usually assessed by relationship of scale scores to years or generations in the United States. A major limitation of most available measures of acculturation is that they have not been evaluated for general populations of Mexican Americans. Most have been tested in student populations (Olmedo and Padilla 1978; Szapocnik et al. 1978; Szapocnik, Kurtines, and Fernandez 1980; Olmeda, Martinez, and Martinez 1978; Ramirez 1984) or on samples of psychiatric patients and staff (Cuellar, Harris, and Jasso 1980). Deyo et al. (1985) conducted the only study prior to the LA-ECA that tested the reliability and validity of an acculturation measure on a community probability sample. That measure, consisting of four items, assessed language usage only. While it met the criteria for Guttman scaling and distinguished between Mexican Americans born in the United States and those born in Mexico, it did not differentiate among different generations of Mexican Americans born in the United States.

Burnam et al. (1987) described the conceptual framework and measure of acculturation used in the present study (the LA-ECA Acculturation Scale). Adapted from Szapocznik et al. (1978) and Cuellar, Harris, and Jasso (1980), the measure was designed to assess multiple dimensions of acculturation within a broader, global dimension (model three, life-activity domains). The dimensionality, reliability, and validity of the LA-ECA Acculturation Scale were examined in a representative household sample of Mexican Americans in Los Angeles, as described in detail by Burnam et al. (1987) and summarized in the Methods section of this article.

ACCULTURATION AND USE OF HEALTH SERVICES BY MEXICAN AMERICANS

Despite the recent advances in the conceptualization and assessment of acculturation, little is known about the effects of level of acculturation on use of health services by Mexican Americans, for several reasons.

First, there have been relatively few studies of service use by representative household samples of Mexican Americans. Second, different studies have been from different geographic regions that included Hispanics of different cultural origins. Third, different studies have focused on different components of use (e.g., general physical health services, well-care or preventive services, mental health services, and dental services).

Fourth, only a few studies of use of health services by Hispanics have included measures of acculturation (Andersen et al. 1981;

Markides, Levin, and Ray 1985; Chesney et al. 1982; Slesinger and Cautley 1981). Of these, most used proxy measures, such as length of residence in the community, rather than directly assessing acculturation (Andersen et al. 1981; Markides, Levin, and Ray 1985; Slesinger and Cautley 1981). Further, some of the existing studies examined effects of acculturation (or proxies for acculturation) on attitudes toward care or rates of receiving treatment for specific health problems, rather than actual rates of use of a particular service for any problem (Chesney et al. 1982). In addition, only a few studies used multivariate techniques to estimate effects of acculturation on use while controlling for other factors that may affect use, especially health status (Andersen et al. 1981; Chesney et al. 1982).

Because of these design differences, it has been impossible to reach any definite conclusions about the effects of acculturation on service use. Several studies of general medical services found no effects of measures of acculturation on use by Mexican Americans (Andersen et al. 1981; Markides, Levin, and Ray 1985). Other studies emphasized the greater barriers to care encountered by less acculturated Mexican Americans (Chesney et al. 1982), especially migrant workers (Slesinger and Cautley 1981).

We have provided the only previous estimates based on a general population of the effects of acculturation separately on the probability of use of general health services and of mental health services. We found that the less acculturated Mexican Americans had a similar probability of use of inpatient and outpatient services for physical health problems, but a lower probability of use of outpatient mental health specialty care and of the human services sector (e.g., social agencies, folk practitioners, clergy) for emotional or mental problems, relative to more acculturated Mexican Americans (Wells et al. 1987). While the estimates were sex-age adjusted, we did not control for a variety of other individual characteristics such as occupation or insurance status, that could be correlated with both use of services and level of acculturation. In this article, we attempt to distinguish between true effects of acculturation and of potentially confounding factors, especially socioeconomic status. Further, in our earlier analyses, we did not examine effects of interactions between level of acculturation and other individual characteristics on use of services. Another important goal of this article is to examine such interaction effects.

We identified no previous studies that systematically examined effects on rates of service use of interactions between direct measures of acculturation and other individual characteristics. We followed several steps to develop speculations about these interactions. First, following

the formulation of Aday and Andersen (1974), we grouped determinants of use of services into need-related factors (general health perceptions, functioning and physical status, psychiatric disorder), resources or enabling factors (income, health insurance), and relatively enduring or predisposing factors (age, gender, education, acculturation). Second, we reviewed the extensive literature on barriers to care for Mexican Americans. Barriers to care were usually described as experienced more often by less acculturated Mexican Americans (Griffith 1983; Lopez 1981; Padilla, Ruiz, and Alvarez 1975; Acosta 1979; McLemore 1963; Moustafa and Weiss 1968; Nall and Speilberg 1967; Angel and Thoits 1987; Regier et al. 1984; Eatan et al. 1984; Eaton and Kessler 1985; Robins et al. 1981; American Psychiatric Association 1980). These barriers largely represent predisposing and enabling factors: (1) unfamiliarity with U.S. health care systems (predisposing); (2) negative attitudes about physicians or hospitals (predisposing); (3) language barriers (predisposing); (4) poverty or lack of health insurance (enabling); (5) social isolation or poor transportation (enabling); and (6) use of alternative resources, such as home remedies or *curanderos* (Keefe and Casas 1978; Karno and Edgerton 1969; Philippus 1971; Madsen 1964; Nall and Speilberg 1967; Jaco 1960; Rubel 1966; Griffith 1983; Lopez 1981; Padilla, Ruiz, and Alvarez 1975; Acosta 1979; McLemore 1963; Moustata and Weiss 1968; Angel and Thoits 1987). Barriers 1, 2, 3, and 6 may be direct consequences of low acculturation, while explanations 4 and 5 may be consequences of the limited socioeconomic resources often associated with low levels of acculturation.

Third, we developed several assumptions about interaction effects, based on this literature. We assumed that because of unfamiliarity with the host culture, the less acculturated Mexican Americans are less able to use available resources effectively. Thus, we hypothesized that they would be relatively less responsive than the more acculturated to enabling factors. We assumed that, because of increased barriers to care, the less acculturated would be unlikely to use services unless perceived need was high. Thus, we hypothesized that they would be less responsive than the more acculturated to need-related factors. This hypothesis is consistent with existing evidence that cultural differences in interpretation of symptoms may be associated with differences in help-seeking behavior (Angel and Thoits 1987). We did not develop specific assumptions or hypotheses about interactions of acculturation with predisposing variables.

METHODS

The NIMH Epidemiologic Catchment Area (ECA) Program is a multisite, general-population survey of the epidemiology of psychiatric disorders and of use of health services by adults (Regier et al. 1984; Eaton et al. 1984; Eaton and Kessler 1985). The Los Angeles ECA site has a household probability sample of two mental health catchment areas (East Los Angeles and Venice/Culver City) (Hough, Karno, Burnam, et al. 1983). Approximately 50 percent of respondents are of Hispanic origin (mostly Mexican American). Data were obtained from face-to-face interviews, conducted in 1983–1984, of 3,132 community residents. The overall completion rate was 68 percent. This article reports data on 1,055 Mexican Americans, with complete data on the variables of interest for this article.

The interviews elicited information on sociodemographic characteristics, general health status, use of health services, and presence or absence of specific psychiatric disorders.

MEASURES OF NEED

Data on psychiatric disorders were obtained with the NIMH Diagnostic Interview Schedule (DIS), a structured interview administered by lay persons that yields diagnoses according to DSM-III criteria (Robins et al. 1981; American Psychiatric Association 1980). A Spanish language version of this instrument was developed specifically for this study (Karno, Burnam, Escobar, et al. 1983; Burnam, Karno, Hough, et al. 1983). The indicator of psychiatric status used in this article is the presence of any or absence of all of the following disorders—affective, anxiety, substance abuse, schizophrenia/schizophreniform, somatization, antisocial personality, and cognitive dysfunction—during the six months preceding the interview.

The survey questionnaire included 46 items that assessed physical health and functional status in the previous six months. We developed an indicator variable for the presence or absence of any limitation in physical or role functioning due to physical health.

MEASURES OF ETHNICITY AND ACCULTURATION

To classify respondents as Mexican American, we used survey questions assessing respondents' ethnic background and place of birth, parents' and grandparents' ethnic background, and parents' place of birth. Respondents were classified as Mexican American if they identified

themselves as such, if they were born in Mexico, or if at least one parent or more than one grandparent was of Mexican origin or descent. Individuals who were born in countries other than the United States or Mexico were not classified as Mexican American. Using these definitions, a total of 1,244 respondents were designated as Mexican American.

We assessed acculturation with a 26-item instrument designed specifically for the LA-ECA. Most of the items were adapted from Cuellar's ARSMA (Cuellar, Harris, and Jasso 1980) and Szapocznik et al.'s Behavioral Acculturation Scale (1978). The instrument focuses on culturally related behaviors and attitudes, and excludes items that directly assess socioeconomic status. The items reflect degree of involvement in Hispanic culture relative to Anglo American culture, with bicultural individuals represented at the midpoint of this dimension.

As reported in Burnam et al. (1987), the 26 items identify three primary factors. The first represents language use, language skills, and direct contact with Mexico, and accounts for 62 percent of the total item variance. The second reflects social activities and accounts for 5 percent of the variance. The third, composed of items reflecting self-reported ethnic background, accounts for 5 percent of the variance. Because all 26 items had high loadings on the first unrotated factor and because scales representing the three factors were highly interrelated, a global acculturation scale composed of all 26 items was formed. Its internal consistency as estimated by Cronbach's alpha was 0.97 in the total ECA Mexican American sample; it exceeded 0.90 for males and females, for each educational level, and for both Spanish-speaking and English-speaking Mexican Americans. Construct validity, as assessed by its relation to number of years residing in the United States and generational group, was excellent. The analyses in this article use the global scale.

MEASURES OF UTILIZATION

The interview elicited data on the number of outpatient visits for emotional and physical health problems in the six-month period prior to the interview. To enhance the validity of responses for this relatively long recall period, respondents were asked to provide information on each provider visited and on the number of visits to each provider. Respondents also indicated the number of hospitalizations or overnight stays for mental and physical health reasons during the 12 months prior to the interview and the number of nights for each stay. In this article, we

only report data on the probability of any use of services. Preliminary analyses indicated that there was very poor precision for estimating effects of acculturation on the number of visits given any use.

Consistent with previous utilization analyses of ECA data (Hough et al. 1987; Shapiro et al. 1984), we grouped providers of mental health services into specialty mental health (psychiatrists, psychologists), general medical (nonpsychiatrist physicians), and human service (family or social services, self-help groups, clergy, or folk practitioners).

STATISTICAL METHODS

We used cross tabulations to compare Mexican Americans of high and low acculturation in sociodemographic factors, health status, and use of services. For these two-way analyses, we divided each continuous measure (age, job status, acculturation) at its median.

We estimated logistic regression models of the probability of an inpatient admission in 12 months and of four types of outpatient care in six months (general medical sector for physical and emotional problems, specialty mental health and human service sectors for emotional problems). Explanatory variables included the main effects of acculturation, sex, age, job status (the Nam-Powers job status score) (Nam and Powers 1965), presence of private insurance, Medicaid, any current psychiatric disorder, physical limitation, and level of general health status. For these analyses, we used continuous versions of variables, when possible. In preliminary analyses, we had also tested measures of chronic disease, psychological distress, education, and income; these were removed due to multicollinearity.

To test for interaction effects between acculturation and other explanatory variables on use, we grouped explanatory variables into need-related, enabling, and predisposing variables. We performed separate regressions, including all main effects and the interactions of acculturation with one set of explanatory variables at a time. In the final regressions, we included all main effects and the interactions that were significant in the preliminary analyses.

We weighted analyses to adjust for probability of selection into the sample. The significance tests and standard errors are corrected for household clustering (i.e., they approximate exact variance estimates). To make this correction for the cross tabulations, we used the SESUDAAN program (Shah 1981). For the logistic regression we used an estimation technique that was developed for complex sample designs by Rogers (1983), based on the work of Huber (1967).

RESULTS

The analytic sample consists of 1,055 Mexican Americans. Table 1 compares those above and below the median on the global acculturation score in selected characteristics. The less acculturated (relative to the more) are significantly more likely to be male and to be married, and significantly less likely to have a high-status job, a physical limitation, and a current psychiatric disorder. In addition, the less acculturated are less likely to have private insurance, but there is no difference in percent with Medicaid between the two acculturation groups (Table 1).

Of all Mexican Americans, 8.5 percent had an inpatient admission for a physical problem in 12 months. Regarding the proportion with any outpatient visit in six months, 37.8 percent of all Mexican Americans sought care from the general medical sector for a physical problem and 2.1 percent sought care from this sector for an emotional problem; 2.2 percent visited a mental health specialist, and 2.9 percent sought human service sector care.

Table 2 shows differences in use as a function of individual characteristics. These bivariate associations do not control for other variables. There are large differences by level of acculturation in the percentage of Mexican Americans with any six-month outpatient visit to the mental health specialty sector and to the human service sector. The more acculturated are about six times as likely to use specialty mental health and three and one-half times as likely to use human service sector care

Table 1: Characteristics of Mexican Americans by Acculturation

	Acculturation				
	Low (N = 502)		*High (N = 553)*		
Characteristic	*Percent*	*(s.e.)*	*Percent*	*(s.e.)*	*Sign Level*
Age >40	34.3	(2.23)	38.1	(1.94)	ns*
Psychiatric diagnosis	14.9	(1.90)	23.2	(1.97)	†
Female	40.4	(2.73)	50.2	(2.28)	†
Medicaid	8.9	(1.37)	10.9	(1.42)	ns
Private insurance	51.4	(2.53)	68.6	(1.85)	‡
Good or excellent general health	69.1	(2.10)	73.5	(3.03)	ns
Physical limitation	11.0	(1.62)	18.2	(1.98)	†
Married	73.3	(2.07)	48.8	(1.89)	‡
High job status	15.7	(1.84)	40.7	(1.99)	‡

*ns = $p > .10$.
†$p < .05$.
‡$p < .01$.

Table 2: Total Effects of Individual Characteristics on Any Use of Services by Mexican Americans ($N = 1,055$)

Characteristic	*Medical Inpatient Use* Percent (s.e.) Sign Level	*General Medical Visit* Percent (s.e.) Sign Level	*General Medical for Emotional Problems* Percent (s.e.) Sign Level	*Specialty Mental Health* Percent (s.e.) Sign Level	*Human Service Sector* Percent (s.e.) Sign Level
Acculturation	ns*	†	ns*	†	†
Low	7.7 (0.8)	34.3 (2.3)	1.8 (0.7)	0.6 (0.3)	1.3 (0.6)
High	9.7 (1.6)	41.2 (2.3)	2.4 (0.5)	3.5 (0.7)	4.3 (1.0)
Age	†	†	ns*	ns*	$p < .10$
18–39	6.9 (0.9)	34.7 (2.2)	1.5 (0.5)	2.4 (0.7)	3.6 (0.8)
≥40	11.3 (1.7)	43.2 (2.9)	3.1 (1.1)	1.8 (0.7)	1.7 (0.7)
Sex	†	†	$p < .10$	$p < .10$	ns*
Male	6.2 (1.0)	29.7 (2.4)	1.4 (0.6)	1.5 (0.5)	2.7 (0.8)
Female	11.3 (1.4)	47.3 (1.9)	2.8 (0.6)	3.0 (0.7)	3.1 (0.8)
Married	ns*	ns*	ns*	ns*	ns*
No	7.4 (1.5)	37.3 (2.6)	2.8 (0.9)	2.8 (0.9)	3.6 (0.9)
Yes	9.2 (1.1)	38.0 (2.3)	1.6 (0.7)	1.8 (0.6)	2.4 (0.6)
Job status	ns*	ns*	ns*	ns*	ns*
Low	8.8 (1.0)	38.1 (2.1)	2.0 (0.7)	1.6 (0.5)	2.7 (0.7)
High	7.9 (1.5)	37.0 (3.0)	2.3 (1.0)	3.6 (1.1)	3.3 (1.1)
Medicaid	†	†	ns*	ns*	ns*
No	6.9 (0.7)	35.1 (1.9)	1.8 (0.4)	1.9 (0.5)	3.0 (0.6)
Yes	23.1 (3.7)	62.2 (5.0)	4.0 (1.5)	4.4 (1.8)	2.0 (1.3)
Private insurance	ns*	†	ns*	ns*	ns*
No	7.2 (1.5)	28.5 (2.5)	1.9 (0.7)	1.8 (0.7)	3.6 (1.0)
Yes	9.4 (1.2)	43.9 (2.1)	2.1 (0.5)	2.4 (0.6)	2.4 (0.7)
General health	†	†	ns*	ns*	ns*
Poor	14.9 (2.2)	46.5 (2.9)	3.4 (1.0)	3.3 (1.0)	3.3 (1.1)
Good	6.0 (0.9)	34.3 (2.1)	1.5 (0.6)	1.8 (0.4)	2.7 (0.7)
Physical limitation	†	†	ns*	ns*	ns*
No	5.9 (0.7)	32.7 (2.1)	1.8 (0.4)	1.8 (0.4)	2.7 (0.6)
Yes	23.9 (3.6)	67.8 (4.6)	3.9 (1.5)	4.2 (1.5)	4.2 (1.8)
Psychiatric disorder	ns*	ns*	ns*	†	ns*
No	8.3 (1.0)	36.6 (2.0)	2.0 (0.4)	1.0 (0.3)	2.6 (0.6)
Yes	9.4 (2.2)	42.6 (4.4)	2.5 (1.2)	7.1 (1.9)	4.0 (1.3)

*ns = $p > .10$.
†$p < .05$.

as the less acculturated are (each $p < .05$). In addition, the highly acculturated are about 20 percent more likely to have a general medical visit for a physical health problem ($p < .05$).

As shown in Table 2, older adults are significantly more likely to

report inpatient or outpatient care for physical health problems than are young adults (each $p < .05$). Young adults, however, are more likely to use the human service sector ($p < .10$). Females have significantly higher levels of use than males in all categories of use except the human service sector.

Insurance coverage is associated with higher likelihoods of use of inpatient and outpatient care for physical problems. Those with Medicaid are three times as likely to have an inpatient medical admission and nearly 80 percent more likely to have an outpatient medical visit than those without Medicaid (each $p < .05$); those with private insurance are 50 percent more likely to have an outpatient medical visit than those without such insurance ($p < .05$).

Poor physical health status, as measured by either general health status or presence of a physical limitation, is associated with a significantly higher prevalence of use of inpatient and outpatient physical health services, but not of outpatient mental health services.

Presence of a psychiatric disorder is associated with a significantly higher likelihood (by sevenfold) of outpatient specialty mental health care, but not with significant differences in other dimensions of use.

Table 3 presents the multiple logistic regression results for use of services for physical health problems. The regression coefficients represent the partial effects of individual characteristics on use. When other factors are controlled, the more acculturated are more likely to have any outpatient medical care for physical problems. Being female, having Medicaid or private insurance, having poorer perceived general health, and having a physical limitation are independently associated with this type of outpatient use for Mexican Americans. In addition, there is a significant interaction between general health status and acculturation. Poor health status increases the probability of having a visit more for the less acculturated than for the more acculturated. As shown in Table 4, among those with poor health, a similar percentage of each acculturation group has a medical visit; but among those in good health, 25.6 percent of the less acculturated group compared to 38.8 percent of the highly acculturated group, have a visit.

Factors independently and significantly associated with higher inpatient admission rates are: having Medicaid, being in poor general health, having a physical limitation, being female, and being married. Further, there is a significant interaction between acculturation and Medicaid status. As shown in Table 4, among the less acculturated, those with Medicaid have twice the admission rate as those without. Among the highly acculturated, use is nearly five times higher for those with Medicaid than for those without it.

Table 3: Predictors of Any Outpatient and Inpatient Care for Physical Health Reasons by Mexican Americans

	Any Outpatient Care 6 Months (N = 1,055)			*Any Inpatient Admission 12 Months (N = 1,054)*		
Explanatory Variable	*Coefficient*	*Standard Error*	t	*Coefficient*	*Standard Error*	t
Intercept	-2.50	.350	-7.12	-4.35	.540	-8.05
Acculturation	-0.184	.083	2.21	-0.042	.133	-0.32
Age > 40	-0.0009	.005	-0.17	-0.0044	.0085	0.52
Job status	-0.006	.004	-1.63	0.0006	.005	-0.11
Female	0.670	.155	4.31	0.452	.219	2.07
Medicaid	0.960	.238	4.04	1.00	.283	3.53
Private insurance	0.817	.176	4.64	0.435	.271	1.60
Psychiatric disorder	0.063	.203	0.31	-0.261	.319	-0.82
General health	-0.313	.029	-3.15	-0.435	.178	-2.44
Physical limitation	1.14	.260	4.38	1.07	.321	3.34
Married	0.164	.187	0.87	0.479	.252	1.90
Acculturation × general health	0.171	.0828	2.06			
Acculturation × Medicaid				0.618	.307	2.01

Table 4: Effects of Interactions between Acculturation and Other Factors on Use of Services

Type of Use/Acculturation	*General Health*			
General Medical Visit	*Poor*		*Good*	
Low	48.8	(4.4)*	25.6	(2.5)
High	43.5	(3.4)	38.8	(2.3)
	Medicaid			
Medical Hospital Admission	*No*		*Yes*	
Low	7.7	(1.0)	14.4	(4.2)
High	7.0	(1.3)	30.5	(5.0)

*Numbers in parentheses are standard errors.

As shown in Table 5, acculturation has a significant association with outpatient use of the mental health specialty sector even after controlling for differences in sociodemographic and economic status, health status, and type of insurance. The factors other than acculturation that are significantly and independently associated with an outpatient visit to the mental health specialty sector are the presence of a psychiatric disorder, having private insurance, and being female (at the

Table 5: Predictors of Any Outpatient Care for Emotional Problems

Explanatory Variable	*General Medical Sector*			*Mental Health Specialty Sector*			*Human Service Sector*		
	Coefficient	*Standard Error*	t	*Coefficient*	*Standard Error*	t	*Coefficient*	*Standard Error*	t
Intercept	-4.880	.970	-5.04	-6.340	1.220	-5.22	-2.420	1.080	-2.24
Acculturation	.067	.234	-0.28	.434	.192	2.26	.584	.321	1.82
Age ≥ 40	.006	.021	0.29	-.021	.018	-1.12	-.036	.014	-2.55
Job status	.002	.016	0.12	.010	.011	0.89	.016	.013	-1.20
Female	.484	.500	0.97	.972	.521	1.86	-.132	.433	-0.31
Medicaid	.400	.638	0.63	.916	.590	1.55	-.278	.911	-0.31
Private insurance	.165	.573	0.29	.918	.515	1.78	-.322	.569	-0.57
Psychiatric disorder	.018	.530	0.03	1.840	.473	3.88	-.044	.533	-0.08
General health	-.542	.258	-2.10	-.013	.235	-0.06	-.239	.345	-0.69
Physical limitation	.085	.588	0.15	.489	.592	0.83	.440	.557	0.79
Married	-.572	.565	-1.01	.228	.494	0.46	-.169	.518	-0.33
Acculturation × married							.498	.432	1.15

alpha = .10 level). For use of the general medical sector (for emotional care), only general health status had a significant effect.

More-highly acculturated and young adult Mexican Americans are significantly more likely to use the human service sector. (Acculturation is significant at the alpha = .10 level).

DISCUSSION

Less acculturated Mexican Americans had significantly lower likelihoods of an outpatient visit for physical health problems, or of outpatient care from either the specialty mental health or the human service sector for an emotional problem. We observed similar differences in use of mental health services by level of acculturation after controlling for predisposing, enabling, and need-related variables. Thus, large differences in use among Mexican Americans are associated with the level of acculturation per se, and are not explained either by differences in socioeconomic status (as assessed by occupational status) or by other individual characteristics. This finding emphasizes the need for targeting the less acculturated Mexican Americans as a group of particular policy interest regarding access to services (entry into care).

Across the probabilities of use of five types of services, we observed only two significant and independent interactions between acculturation and other individual characteristics—one with a need-related variable and one with an enabling variable. For use of outpatient care for physical problems, perceived general health status had a larger effect on use for the less than the more acculturated. Presumably, visits for those in good health are related to either well-care (routine physical, preventive services) or transient illnesses or symptoms. Our finding is consistent with that of Andersen et al. (1981), who observed low rates of preventive care for Hispanic Americans. It is also consistent with our assumption that Mexican Americans of low acculturation would be unlikely to use services unless they perceived themselves to be very ill.

For the likelihood of an inpatient admission for physical health problems, having Medicaid was associated with a doubling of use for those of low acculturation but with over a quadrupling of use for the highly acculturated. Among those with Medicaid, the less acculturated may experience relatively more barriers to care, such as language barriers or unfamiliarity with services. Alternatively, the less acculturated may be less severely ill. However, we controlled for both perceived general health status and limitations in functioning due to poor physi-

cal health in our analysis, so we doubt that a difference in severity of illness explains this finding. Thus, there was some support for the hypothesis of differential response by acculturation to enabling variables. This finding is of some policy interest, since Medicaid represents the major effort in the United States to increase access of the sick poor to health services. The less acculturated Mexican Americans appear relatively less likely to use services covered by Medicaid, even when controlling for need.

We have described responses of utilization to a global measure of acculturation. Specific acculturation subdimensions were not sufficiently independent to justify inclusion as separate explanatory variables. We also did not test the effects of a "bicultural" model of acculturation on use, nor did we attempt to discriminate between effects of immigration status and effects of acculturation—preliminary analyses indicated that these constructs were very highly correlated. Level of acculturation is usually highly confounded with socioeconomic status. Here, we attempted to reduce this confounding by removing indicators of such status from the acculturation measures and by including indicators of socioeconomic status as covariates in the regression analyses. Our measures of tolerance indicated that associations of use with acculturation and socioeconomic status could be distinguished adequately in these regression analyses. Thus, we think that the effects of acculturation reported here are relatively unconfounded with socioeconomic status.

We examined determinants of use for Mexican Americans as a whole. Generally, factors predictive of high use in this analysis were similar to those reported in other general population studies (Broyles et al. 1983; Berki et al. 1978; U.S. Department of Health and Human Services 1983; Newhouse et al. 1981): women, those with insurance, and those in poor health had high prevalences of use of outpatient and inpatient medical services. We had low precision for our analyses of use of mental health services, due to our sample size and the very low rates of use, particularly for the less acculturated. Only perceived general health status was significantly associated with use of the general medical sector for emotional problems, although older participants and women tended to have higher rates of use. For the probability of any outpatient use of the mental health specialty sector, the presence of a psychiatric disorder, gender, and having private insurance were independently associated with use. The directions of these effects are consistent with other studies of use of mental health services for the (predominantly white) general population (Horgon 1985; McGuire 1981; Manning et al. 1984).

This study has several major strengths. Specifically, this is one of a handful of studies of a representative household sample of Mexican Americans. It is the first to use a measure of multiple specific psychiatric disorders. Unlike previous studies, it assesses use of physical health, mental health, and human services by a general population. It is one of the first studies of use of services to include a direct measure of acculturation. Limitations of the study are the long time interval (six months) for self-reports of use of outpatient services and the single site. Because this article uses data from the cross-sectional component of the ECA, firm causal inferences are not warranted.

Our results, as a whole, underscore the low levels of use, particularly of mental health services, by less acculturated Mexican Americans. Levels of some types of use are so low, in fact, that extremely large sample sizes would be required to examine more fully and in more detail the determinants of use. Thus, the less acculturated Mexican Americans are of particular policy interest; they are especially likely to have unmet health care needs; they are less likely to have outpatient care when perceived health is good; and they are somewhat less responsive to Medicaid, the major effort by the United States to increase access to health care for the sick poor. Future studies should focus on attitudes toward health care, previous health care experiences, and adequacy of family supports in the search for explanations for low levels of use by less acculturated Mexican Americans.

ACKNOWLEDGMENTS

The authors thank William Rogers and Alan Forsythe for statistical consultation, and Patricia Camp for assistance with programming. The NIMH Principal Collaborators are Darrel A. Regier, Ben Z. Locke, and Jack D. Burke, Jr.; the NIMH Project Officer is William J. Huber. The Principal Investigators and Co-Investigators from the five sites are: Yale University, U01 MH 34224—Jerome K. Myers, Myrna M. Weissman, and Gary L. Tischler; the Johns Hopkins University, U01 MH 33870—Morton Kramer and Sam Shapiro; Washington University, St. Louis, U01 MH 33883—Lee N. Robins and John E. Helzer; Duke University, U01 MH 35386—Dan Blazer and Linda George; University of California, Los Angeles, U01 MH 35865—Marvin Karno, Richard L. Hough, Javier I. Escobar, M. Audrey Burnam, and Dianne M. Timbers.

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