



Archives of
General Psychiatry

- Table of Contents
- Contact Authors
- Archives Past issues
- Instructions for Authors
- Requirements for Letters
- Related links

- About Archives
- Classified ads
- Reader Services
- Search

ARCHIVES

GENERAL PSYCHIATRY

Editor
Jack D. Sarchas, MD

Original Article - September 1998

Lifetime Prevalence of *DSM-III-R* Psychiatric Disorders Among Urban and Rural Mexican Americans in California

William A. Vega, PhD; Bohdan Kolody, PhD; Sergiy Aguilar-Gaxiola, MD, PhD; Ethel Alderete, DrPH; Ralph Catalano, PhD; Jorge Caraveo-Anduaga, MD

Background: The Mexican American Prevalence and Services Survey presents lifetime prevalence rates for 12 *DSM-III-R* psychiatric disorders in a sample of 3012 adults of Mexican origin by place of residence and nativity, and compares these results with those of population surveys conducted in the United States and Mexico.

Methods: The stratified random sample included noninstitutionalized persons aged 18 to 59 years of Mexican origin, who were residents of Fresno County, California. Psychiatric disorders were assessed using a modified version of the World Health Organization Composite International Diagnostic Interview in face-to-face interviews.

Results: Mexican immigrants had lifetime rates similar to those of Mexican citizens, while rates for Mexican Americans were similar to those of the national population of the United States. This difference is attributable to a prevalence rate for any disorder among immigrants of 24.9%, compared with 48.1% among US-born respondents. A higher prevalence for any disorder was reported in urban (35.7%) compared with town (32.1%) or rural (29.8%) areas. Multivariate analyses showed an adjusted effect of country of birth, but not of urban residence.

almost
doubled

Conclusions: Despite very low education and income levels, Mexican Americans had lower rates of lifetime psychiatric disorders compared with rates reported for the US population by the National Comorbidity Survey. Psychiatric morbidity among Mexican Americans is primarily influenced by cultural variance rather than socioeconomic status or urban vs rural residence.

MEXICAN AMERICANS are the largest Hispanic ethnic group in the United States, numbering about 7.5 million in California.[1] The profile of the Mexican American population has changed rapidly in the past decade owing to immigration, increasing poverty, and settlement patterns.[2] The Mexican American Prevalence and Services Survey (MAPSS) is the first study to cover *DSM-III-R*[3] disorders in a community sample of Mexican Americans living in urban and nonurban residential settings.

More than a decade ago, the Los Angeles Epidemiologic Catchment Area (LAECA) study, as part of the landmark Epidemiologic Catchment Area program, used the English- and Spanish-language versions of the Diagnostic Interview Schedule to estimate the prevalence of *DSM-III* disorders among Mexican Americans in Los Angeles, Calif.[4-7] Total *DSM-III* psychiatric disorder lifetime rates for urban Mexican Americans were similar to those for white non-Hispanics, 34.6% and 35.2%, respectively.[8] Mexican Americans had higher rates than white non-Hispanics for alcohol abuse or dependence, and phobia. The LAECA reported that US-born Mexican Americans had higher rates of major depression, dysthymia, phobia, alcohol abuse or dependence, and drug abuse or dependence than did Mexican immigrants in the same sample.[9]

The National Comorbidity Survey (NCS)[10] reported higher prevalence rates of current affective disorders and comorbidity among Hispanics, but did not find higher alcohol disorder rates when compared with white non-Hispanics. An important distinction between the NCS and the LAECA is that the NCS Hispanic subsample consisted of mixed Latin American nationalities and no Spanish-language interviewing was conducted. The MAPSS was designed to compare psychiatric morbidity for immigrant and native-born adults of Mexican origin with rates for the US national population from the NCS and from a Mexico City, Mexico, survey that used similar diagnostic protocols.

SUBJECTS AND METHODS

SAMPLING

The 3012 subjects in this study were selected from Fresno County under a fully probabilistic, stratified, multistage cluster sampling design. Fresno County is located in the California Central Valley,

midway between Los Angeles and San Francisco, and about 200 miles [320 km] from either city. The population of the county is approximately 764,810, and 463,000 of these are located in the Fresno-Clovis metropolitan area. Fresno is the sixth largest city in California. Hispanics, almost all of whom are of Mexican origin, constitute 38.2% of the county population.[11] The 200 primary sampling units (PSUs) in each stratum were census blocks or block aggregates selected with a probability proportionate to the size of their Hispanic population. In the second sampling stage a quota of 5 households was randomly selected in each PSU. In the final stage, one person per household was randomly selected. To achieve the household stage sample quota of at least 5 Mexican-origin households, low-Hispanic-density blocks were aggregated with contiguous blocks into PSUs with a population of 30 or more Hispanics. Under this design, two thirds of the PSUs remained as single census blocks while the remaining one third represent aggregation ranging from block pairs to entire census tracts. Evaluation of our PSU sample revealed that it closely mirrors the county population. Two thirds of the Hispanic population reside in blocks with 30 or more Hispanics (our PSU definition) and 70% of our sampled PSUs represent single blocks. Further, 3.9% of the population and 4.0% of our PSU sample reside in entire-tract aggregations.

Enumerators were used to locate eligible subjects. Enumeration began at the northwest corner and proceeded counterclockwise. In high-Hispanic-density PSUs, a skip pattern for household selection inversely proportionate to the number of Hispanics was used to minimize selection of immediate neighbors. Within households, enumerators generated a full, numbered list of eligible subjects in age order. Random digits attached to the enumeration form dictated which person on the list would become the study subject. Up to 5 call-back attempts were made to recruit the selected subject into the study interview. After a household was selected, Mexican origin was established using the same ethnicity-nationality indicator used in other large national and regional health studies; potential respondents were asked by enumerators if they or at least 1 parent or grandparent was born in Mexico. The possibility exists that some respondents who were born in Mexico denied it owing to concerns about identification by the US Immigration and Naturalization Service. However, because the research was presented as a health study, we believe Mexican respondents were highly reliable in reporting their national origins. Furthermore, Mexican origin is not a prima facie basis for deportation. Enumerators also asked potential respondents their age at their last birthday, and only those between 18 and 59 years of age were retained for the study. The sample was stratified by sex and place of residence in Fresno County, with total subsample

4. Robins LN, Regier DA, eds. *Psychiatric Disorders in America: The Epidemiologic Catchment Area Study*. New York, NY: Free Press; 1991.
5. Hough R, Karno M, Burnam MA, Escobar JJ, Timbers DM. The Los Angeles Epidemiologic Catchment Area research program and the epidemiology of psychiatric disorders among Mexican Americans. *J Oper Psychiatry*. 1983;14:42-51.
6. Robins LN, Helzer JE, Croughan JL, Rattcliff KS. National Institute of Mental Health Diagnostic Interview Schedule: its history, characteristics and validity. *Arch Gen Psychiatry*. 1981;38:381-389.
7. Burnam MA, Karno A, Hough RL, Escobar JJ. The Spanish Diagnostic Interview Schedule. *Arch Gen Psychiatry*. 1983;40:1189-1196.
8. Karno M, Hough RL, Burnam A, Escobar JJ, Timbers DM, Santana F, Boyd JH. Lifetime prevalence of specific psychiatric disorders among Mexican Americans and non-Hispanic whites in Los Angeles. *Arch Gen Psychiatry*. 1987;44:695-701.
9. Burnam MA, Hough RL, Karno M, Escobar JJ, Telles C. Acculturation and lifetime prevalence of psychiatric disorders among Mexican Americans in Los Angeles. *J Health Soc Behav*. 1987;28:89-102.
10. Kessler RC, McGongale KA, Zhao S, Nelson CB, Hughes M, Eshelman S, Wittchen H, Kendler K. Lifetime and 12-month prevalence of DSM-III-R psychiatric disorders in the United States. *Arch Gen Psychiatry*. 1994;51:8-19.
11. Vision 20/20. *Snapshot of Fresno County*. Fresno, Calif: United Way; 1996.
12. Shah BV, Barnwell BG, Bieler GS. *SUDAAN User's Manual*, Version 6.4. 2nd ed. Research Triangle Park, NC: Research Triangle Institute; 1996.
13. Robins LN, Wing J, Wittchen HU, Helzer JE, Babor TF, Burke J, Farmer A, Jablenski A, Pickens R, Regier DA, Sartorius N, Towle LH. The Composite International Diagnostic Interview: an epidemiologic instrument suitable for use in conjunction with different diagnostic systems and in different cultures. *Arch Gen Psychiatry*. 1988;45:1069-1077.
14. Wittchen H-U, Robins LN, Cottler LB, Sartorius N, Burke JD;

Regier D. Cross-cultural feasibility, reliability and sources of variance of the Composite International Diagnostic Interview (CIDI). *Br J Psychiatry*. 1991;159:645-653.

15. *Survey: The Development of the UM-CIDI*. Ann Arbor: The University of Michigan Institute for Social Research/Survey Research Center; 1994. NCS Working Paper 2.

16. World Health Organization. Mental health and behavioral disorders (including disorders of psychological development). In: *International Classification of Diseases, 10th Revision*. Geneva, Switzerland: World Health Organization; 1992:311-387.

17. Regier D, Kaelber CT, Rae DS, Farmer ME, Knauper B, Kessler RC, Norquist GS. Limitations of diagnostic criteria and assessment instruments for mental disorders. *Arch Gen Psychiatry*. 1998;55:109-115.

18. Amaro H, Whitaker R, Coffman G, Heeren T. Acculturation and marijuana and cocaine use: findings from HHANES 1982-84. *Am J Public Health*. 1990;80(suppl):54-60.

19. Vega W, Kolody B, Hwang J, Noble A, Porter PA. Perinatal drug use among immigrant and native-born Latinas. *Subst Use Misuse*. 1997;32:43-62.

20. Gilbert MJ. Alcohol consumption patterns in immigrant and later generation Mexican American women. *Hispanic J Behav Sci*. 1987;9:199-213.

21. Markides K, Krause N, Mendes de Leon C. Acculturation and alcohol consumption among Mexican-Americans: a three-generation study. *Am J Public Health*. 1988;78:1178-1181.

22. Caetano R, Medina Mora ME. Acculturation and drinking among people of Mexican descent in Mexico and the United States. *J Stud Alcohol*. 1988;49:462-470.

23. Medina Mora ME, Conner RT, Sepulveda J, Otero MR. Extension del consumo de drogas en Mexico, encuesta Nacional de Adicciones: resultados nacionales. *Salud Mental*. 1989;12:7-12.

24. Vega WA, Rumbaut R. Ethnic minorities and mental health. *Annu Rev Sociol*. 1991;17:351-383.

25. Scribner R. Paradox as a paradigm: the health outcomes of Mexican Americans. *Am J Public Health*. 1996;86:303-305.

26. Zambrana RE, Scrimshaw SC, Collins N, Dunkel-Schetter C. Prenatal health behaviors and psychosocial risk factors in pregnant women of Mexican origin: the role of acculturation. *Am J Public Health*. 1997;87:1022-1026.
27. Rumbaut R. Unraveling a public health enigma: why do immigrants experience superior perinatal health outcomes. *Res Soc Health Care*. 1996;13:337-391.
28. Vega WA, Amaro H. Latino outlook: good health, uncertain prognosis. *Annu Rev Public Health*. 1994;15:39-67.
29. Weeks JR. Infant mortality among ethnic immigrant groups. *Soc Sci Med*. 1991;33:327-334.
30. Dohrenwend BP, Dohrenwend BS. *Social Status and Psychological Disorder: A Causal Inquiry*. New York, NY: Wiley InterScience; 1969.

Read the accompanying editorial comment
Table of Contents

Journals - JAMA - AMNews - JAMA Condition-Specific Sites
Archives of: Internal Medicine - Dermatology - Family Medicine - Ophthalmology
Neurology - General Psychiatry - Otolaryngology - Surgery - Pediatrics - Facial Plastic Surgery
Site Update - Search - Guestbook - Reader Services - Classified Ads
Advertising Information - Post Office

© 1995-1998 American Medical Association. All rights reserved.