Translating Research Into Action: Reducing Disparities in Mental Health Care for Mexican Americans

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This article describes a case study in which epidemiologic research findings were translated for multiple stakeholders and applied to reduce disparities in mental health services for Mexican Americans in Fresno County, California. The aims of this evidence-based process were to educate the community and mobilize action, translate research for multiple stakeholders to inform practitioners and policy makers about the need for improved mental health care for minorities, and effect regional policy changes to increase and improve the availability, accessibility, and appropriateness of mental health care for Mexican Americans. Through this process, a community-driven and consumer-oriented model evolved, which resulted in the allocation of resources to expand mental health services in rural areas of Fresno County. The authors discuss the process of translating research into action, key antecedents to an effective outcome, and lessons learned from the process. (*Psychiatric Services* 53:1563–1568, 2002)

Persistent ethnic disparities in health care have been recognized as a national concern. The first Surgeon General's report on mental health (1) was issued in 1999 and was followed by the Healthy People 2010 Initiative of the Department of Health and Human Services (2), which focused on the importance of reducing ethnic disparities in mental health care by 2010. Likewise, in March 2000, the National Congress for Hispanic Mental Health, convened by the Substance Abuse and Mental Health Services Administration, developed a national agenda to reduce the gaps in access to and availability of treatment for Hispanic persons with mental illnesses (3). More recently, the Institute of Medicine's landmark report, *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care,* provided extensive evidence that racial and ethnic minorities have less access to health care and are more likely to receive lower quality health services than white Americans (4).

Hispanics are the fastest-growing ethnic group in the nation; Mexican Americans account for two-thirds of an estimated 35 million Hispanic persons. Projections indicate that Hispanics will constitute 50 percent of California's population by the year 2040 and 25 percent of the U.S. population by 2050 (5). This significant demographic development poses unique health care challenges. Although health care disparities for this ethnic group have been well documented (6–12), efforts to ameliorate these disparities by translating research into policy and practice have been limited. In fact, to our knowledge, this report is the first to apply epidemiologic mental health research findings in an effort to directly change policy and improve services. The purpose of this article is to describe the process of linking scientific research with community action and policy change. Specifically, we describe three phases in this evidence-based process: community education and mobilization, translating research data for multiple stakeholders, and affecting policy.

A model for translating research into action

We discuss as a case study a research action plan that embraced an evidence-based, community-driven, and consumer-oriented approach to reducing disparities in mental health care. A model was developed to describe key events and to articulate the relationship between these events as a process (Table 1). This model was

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developed retrospectively. Some events were strategically planned, such as informing key community leaders about major stages of the study, whereas others evolved naturally, such as translating data for policy makers. However, it is our view that each of these steps was essential to the process and its positive outcome. A brief description of each of the key components follows.

Embracing a philosophy of giving back to the community

A key antecedent to the action plan was a philosophy of giving back to the community, echoing Miller's call to "give psychology away" (13,14). This underlying philosophy was embraced from the inception of the epidemiologic research study. For example, while mental health data were being gathered from Mexican Americans, participants were told, during the informed-consent process, that the data gathered would be used to improve services for Mexican Americans in their community. Guided and challenged by this philosophy, scientists accepted unconventional roles as applied action researchers, community leaders, and advocates. Researchers purposefully embarked on a process whereby they kept key community leaders and the broader community informed throughout major stages of the study—the onset of data collection, completion of data collection, attainment of results, and dissemination of findings.

Phase 1: Community education and mobilization

Research dissemination

A population-based epidemiologic study—the Mexican American Prevalence and Services Survey (MAPSS)—found corroborative evidence of dramatic ethnic disparities in the use of mental health services that could not be explained by differences in the prevalence rates of mental illness. The reported lifetime prevalence of *DSM-III-R* disorders among Mexican Americans was 34 percent (15). Comparative Medicaid data (Medi-Cal in California) for fiscal year 1997–1998 showed that in California the penetration rate—the number of unduplicated mental health clients divided by the average number of persons eligible for Medi-Cal per month—was lower among Hispanics (of which more than 80 percent are Mexican Americans) than among non-Hispanic whites, African Americans, Asians or Pacific Islanders, and Native Americans (1.6 percent compared with 9.5 percent, 6.4 percent, 2.0 percent, and 4.3 percent, respectively) (16).

Californian biometry data for fiscal year 1997–1998 had also shown that Hispanics received 19.5 percent of total nonresidential mental health care in the state-funded county mental health system, yet Hispanics accounted for about 29 percent of the population during those 12 months. Therefore, even publicly insured Hispanics—most of whom are of Mexican origin—had the lowest utilization rates in California. Penetration rates in Fresno County are similar to those of California overall. The MAPSS provided a comprehensive assessment of mental health needs and service use patterns of Mexican Americans residing in rural areas, small towns, and urban areas of Fresno County. Among respondents who had had a mental disorder in the past year, only 4.6 percent of immigrants had received care from a mental health specialist, compared with 11.9 percent of U.S.-born Mexican Americans (9).

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The rate of past-year visits to medical providers for a mental health problem was 11 percent among immigrants and 24 percent among U.S.-born Mexican Americans. Overall utilization for all categories of health care services, including visits to informal social network providers, such as folk healers or *curanderos,* was 15.4 percent for immigrants and 37.5 percent for U.S.-born Mexican Americans. The MAPSS results indicated that the most commonly reported barriers to receipt of mental health services were lack of knowledge of where to seek treatment, lack of proximity to treatment centers, transportation problems, and lack of availability of Spanish-speaking providers.

Scientific and popular press. The publication of the MAPSS findings in the *Archives of General Psychiatry* (15), which documented prevalence rates of mental disorders and the mental health needs of Mexican Americans, attracted widespread attention in the local, state, and national media. This media attention created a facilitative atmosphere and momentum for further dissemination of the MAPSS research findings to key stakeholders and to the general public.

Community roundtable forum. A community roundtable forum was organized so that these research findings could be shared with key community stakeholders: academics, mental health practitioners, consumers, consumer advocates, mental health administrators, policy makers, and other interested constituents. The purpose of this forum was to provide an opportunity for community stakeholders to contribute to the development of an action plan to reduce the documented disparities in mental health care for ethnic minorities and to improve the delivery of services to underserved persons in Fresno County.

Community consensus building

After the community roundtable forum, preliminary discussions began between researchers from California State University, Fresno, and mental health administrators and practitioners from Fresno County Adult Men-

tal Health Services to explore collaborative ways to improve access to mental health services for Mexican Americans in Fresno County. The Latino Mental Health Task Force was created to recognize and formalize the newly established collaborative relationship between researchers, mental health service providers, and the community.

The task force, comprising diverse representatives from both public and private sectors, included consumers, consumer advocates, practitioners, academics, policy makers, and community leaders and served as a community advisory group on ethnic disparities in mental health care. To strengthen the task force's identity, clarify its purpose, and build community consensus, four key events were organized: a forum of mental health experts, a "heal-the-healers" retreat, site visits to identify best practices and build a model of service delivery, and an evaluation of the process.

Forum of mental health experts. Five national experts specializing in minority mental health research, practice, and policy were invited to Fresno to share their expertise with the Latino Mental Health Task Force about best practices in minority mental health. The experts provided direction, strategies, and methods for pursuing the goals of the task force. The outcome of this forum was the articulation of four objectives: to build a model based on best practices, to develop an infrastructure for training, to clarify resources and timelines for future action, and to establish a built-in system of checks and balances.

Heal-the-healers retreat. The purpose of the one-day retreat was to deal positively with past unresolved tensions and frustrations, especially among task force members who felt that their perspectives and concerns had not been validated by service administrators, and to use the energy generated as a catalyst for change. In a safe and confidential atmosphere, members shared personal and professional accounts of overcoming obstacles encountered in addressing political and systemic barriers to mental health care. The retreat included music, food, folktales, and other affirmations of Latino values. This event enhanced the solidarity among members of the task force and increased optimism and commitment for future efforts of the task force.

Table 1

A model for translating research into action

Phase	Key events
Phase 1: community education and mobilization	Research dissemination: scientific and popular press, community roundtable forum
	Community consensus building: forum of mental health experts, heal-the-healers retreat, a model of mental health service delivery and best practices, process evaluation
Phase 2: translating data for multiple stakeholders	Informing practitioners and policy makers Identifying barriers to use of mental health services Estimating fiscal impact
Phase 3: effecting policy	Expansion of services Changes in hiring practices Improved collaboration

Model of mental health service delivery and best practices. To build a model of best practices for providing mental health services to historically underserved minorities, site visits and extensive library research were conducted. Key review articles written over the past three decades and addressing deficiencies in services to Hispanics were identified and summarized (17,18). A team of task force members made site visits to Santa Clara County, California, which has a reputation for having built a state-of-the-art model of culturally sensitive mental health services. These site visits were invaluable in creating supportive linkages between counties.

In addition, a team of task force members identified models of best practice by searching databases such as PsycINFO, Lexis-Nexis, and MEDLINE, and government Web sites, such as those of the National Institute of Mental Health and the Substance Abuse and Mental Health Services Administration, as well as by networking—for example, contacts made at conferences and site visits. The best-practices literature was then summarized by documenting—for each model—organizational information, the mission and goals of the model, the demographics of the target population, and recommendations for designing successful programs.

Process evaluation. To establish a system of checks and balances, as recommended by the forum of mental health experts, focus groups within the Latino Mental Health Task Force were conducted to capture the experiences and perceptions of the members of the task force and to provide a forum for the ongoing work, challenges, and transitions that characterized their efforts. Many members of the task force commented on the importance of science as a tool for improving clinical care and service delivery.

Other important observations and suggestions included recognition that the development of the Latino Mental Health Task Force was a dynamic process that required ongoing assessment of changing needs, the need to expand the focus of the task force to address the mental health care needs of other racial and ethnic groups, validation of personal and professional accomplishments that members had undertaken in isolation, and appreciation of the focus and vision of the task force in placing Mexican-American mental health issues in a broader context.

Phase 2: translating data for multiple stakeholders

Informing practitioners and policy makers

Levine and Perkins (19) posit that "creating access to information" is the key to addressing social problems. To improve mental health services for Mexican Americans in Fresno Coun-

ty, the MAPSS research findings were translated and disseminated in a strategic manner. As noted, the most significant finding of the MAPSS was that about 90 percent of Mexican Americans with one or more past-year disorders had not received any mental health care from a mental health specialist.

This evidence was tailored for dissemination to multiple stakeholders—specifically, practitioners and policy makers—to increase awareness about the need for better mental health care for Mexican Americans and to effect policy change. In addition, the data were translated to identify barriers to the use of mental health services by Mexican Americans and to address potential fiscal savings for the community.

Practitioners. MAPSS data were translated for practitioners to show that Mexican Americans suffering from one or more mental health disorders in the previous 12 months were least likely to receive care from a mental health professional—only 8.8 percent received such care—than from any another professional.

Policy makers. In Fresno County, mental health services are under the jurisdiction of the county board of supervisors, which comprises policy makers elected to represent constituents in five districts. The data from the MAPSS research were translated to specifically illustrate disparities in services for Mexican Americans within each of these districts. For example, it was shown that in every district, most Mexican Americans or persons of Mexican descent who had a diagnosable mental disorder received no services or treatment for their illness.

Identifying barriers to service use by Mexican Americans

MAPSS data were also used to identify barriers associated with unmet mental health needs among Mexican Americans in Fresno County. Informational barriers identified included a lack of knowledge about mental health problems and symptoms, the nature of available mental health services, and the location of services. Fifty-eight percent of respondents who had one or more *DSM-III-R* mental disorders in the previous 12 months did not know where to obtain help or treatment. Geographic barriers covered proximity to care as it related to access and availability of services and included convenience and location of treatment centers and transportation issues.

Fresno County is approximately 6,000 square miles in size, straddling the San Joaquin Valley from the Sierra foothills to the coastal range. Our findings indicated that 37 percent of persons with one or more *DSM-III-R* mental disorders in the previous 12 months would not consider treatment if it was not near their home. Findings also indicated that 19 percent of Mexican Americans in need of care did not have transportation to obtain services. Cultural barriers, such as language preference, also played a role in whether people sought services. Fifty percent of Mexican Americans reported that if they went for treatment, they would prefer to speak Spanish. This finding was critical, because the Fresno County Adult Mental Health Services had only a few Spanish-speaking therapists available, and even bilingual support staff was inadequate to meet patients' needs.

The Latino Mental Health Task Force and Fresno County mental health administrators formed a unified alliance on strategies for improving services for Mexican Americans.

Estimating fiscal impact

The Latino Mental Health Task Force worked collaboratively with Fresno County Adult Mental Health Services to determine the potential fiscal impact—tax dollars saved—of implementing an improved model of service delivery. One approach was to demonstrate the marked differences in costs between outpatient services and the much more costly psychiatric emergency services, given that Mexican Americans typically seek emergency services after having endured a long course of a mental disorder and complications have ensued.

A second approach was to examine how other Fresno County services, such as the district attorney, the police department, probation services, coroner's services, and jail services, were affected by the large number of untreated persons with diagnosable mental disorders. A supplemental analysis of estimated avoidable expenses was calculated on the basis of the 1999–2000 Fresno County budget. Taking into account the percentage of Mexican Americans in Fresno County, the prevalence of mental disorders in this population, and the percentage of these individuals who went untreated, a cost saving of roughly $500,000 to $1,000,000 was estimated for the provision of appropriate services to offset the cost burden to law enforcement, corrections, and other human services.

In short, fiscal analysis clearly showed that significant tax dollars would be saved if additional mental health services were provided for prevention and outpatient treatment rather than psychiatric emergency services, hospitalization, and incarceration.

Phase 3: effecting policy

The biggest challenge that the Latino Mental Health Task Force faced was persuading local policy makers to shift current allocations to improve access to and availability of mental health services for Mexican Americans. Providing empirical evidence to policy makers on the disparities in mental health care that had been identified in the MAPSS was a critical step in effecting change on a systemic level.

The efforts of the task force were

channeled to present a substantive and convincing proposal to the Fresno County board of supervisors for the expenditure of funds to expand services. Several important tasks were initiated: creating a task force mission statement, documenting the history of the task force, and garnering letters of support from administrators, community leaders, and practitioners across a wide variety of professional domains in both the public and private sectors at the local, state, and national levels. These documents were compiled and distributed to key state and local community leaders in preparation for the meeting with the board of supervisors.

The task force's mission to "improve the amount and quality of services delivered to the Mexican American population" was well supported by the research literature and further substantiated in very specific terms by the translated MAPSS research results. A summary of this information, presented in simple language, and a recommended model of best practices and service delivery were provided to each member of the board of supervisors. A team of task force members met with individual supervisors to personally present and explain this information, especially information that was directly related and relevant to each supervisor's district.

Expansion of services

Importantly, the Latino Mental Health Task Force and Fresno County mental health administrators, on the basis of a history of collaboration, formed a unified alliance on strategies for improving services for Mexican Americans, although this alliance was developed with careful compromise.

The Latino Mental Health Task Force recommended a widespread expansion of services through a continuum-of-care approach, including mental health outreach and education, prevention, treatment, and evaluation plans.

On the other hand, Fresno County Adult Mental Health Services favored a smaller pilot project in West County, a single rural location. On the basis of translated data from the MAPSS, which showed that expansion of services in rural communities was a high priority, a first-phase plan for rural expansion of services was proposed. The proposed rural expansion program focused primarily on outreach and crisis management.

Strong community voice and support for the proposed rural expansion program, organized by the Latino Mental Health Task Force, was present during critical meetings of the board of supervisors when testimony was accepted and decisions to change policy were made by the board. Chief county administrators were the key spokespersons for policy change at strategic public meetings before the board of supervisors. Strong community support for the proposed rural expansion program was demonstrated through letters to the board, personal testimonies in public meetings before the board, and meetings with individual supervisors. Finally, a large community contingent, supporting the proposed expansion of services, was present during the critical meeting of the board of supervisors, during which the decision to fund the rural expansion program was made.

All communities can utilize and examine their own existing county resources to develop their own best-practices model of service delivery.

Changes in hiring practices

The rural expansion project was approved by the board of supervisors, a significant step toward progress. Funding was given to support 14 new bilingual mental health professionals and to staff full-time positions, including a Spanish-speaking psychiatrist. In addition, four bilingual and bicultural mental health administrators—a director, an assistant director, a clinical supervisor, and an outreach coordinator and community liaison—were hired to coordinate the rural expansion project.

Finally, internal policies within Fresno County Adult Mental Health Services, such as higher pay rates for bilingual staff members and paid release time for county employees to attend task force meetings, which were previously challenged, were now supported by chief administrators. Thus this new cadre provided a significant change in policy, infrastructure, service delivery, and support for future strategic initiatives for reducing disparities in mental health services for Mexican Americans.

Improved collaboration

After three and a half years, the Latino mental health task force continues to work closely with the Fresno County board of supervisors and other key county personnel to provide training and consultation about best practices, service expansion, and program evaluation. In addition, external funding was secured by the task force to augment the rural expansion project. The task force, in partnership with a multicollaborative network of community-based organizations, consumer advocates, and community educators, is currently implementing a demonstration program designed to increase access to mental health services for Hispanics by addressing modifiable barriers to care.

For example, this collaborative is currently using radio and community forums and educational workshops—and in the future will also use print media and television—to promote the availability of culturally and linguistically sensitive mental health services for Hispanic persons who need services in Fresno County. Likewise, the collaborative is working toward improving the coordination and effectiveness of existing county mental health services by developing a more integrated system of referral from general medical to mental health services.

Lessons learned

Several lessons have been learned from this experience. First, we have learned that to be time-efficient and effective, a plan for the translation and dissemination of scientific findings needs to take place very early in the research process. Incorporating variables that are of interest to stakeholders in the research protocol may facilitate the translation of these findings into concrete actions that have a greater perceived public health value.

Second, translating research into practice and policy is both rewarding and challenging. Translating research into action is more time-consuming and labor-intensive than we had anticipated. Further research and advocacy are needed to significantly reduce disparities in mental health care for Mexican Americans. This translational initiative focused on capacity development, and similar efforts are needed to improve the quality of treatment (20).

Third, we are keenly aware of how our linear approach to research has been replaced by a transactional, dynamic model of applied action research. The individual steps of research and implementation are interlinked. Collaborating closely with different professional cultures—academia, clinical practice, public health administration, and politics—requires fluency in different "languages" and sensitivity to a variety of ideologies.

Fourth, we are aware that not all communities may have sufficient funding to conduct a comprehensive needs assessment similar to the MAPSS. However, all communities can utilize and examine their own existing county resources, such as demographic and service use data as well as other available local agency data, to develop their own best-practices model of service delivery. There are low-cost survey strategies that are effective for assessing the equity of current allocation formulas in local and regional mental health service delivery systems (21).

Conclusions

We have presented a case study in which research findings from a Latino population-based epidemiologic study were effectively translated in a way that improved mental health services for a historically underserved county population of Mexican Americans. We accomplished most of the goals that we set for ourselves in translating research into action. Specifically, we provided high-quality data of strategic importance to the community, informed practitioners and policy makers about the need for specific changes to improve mental health in minority populations, and effected local policy change to increase and improve the availability, accessibility, and appropriateness of mental health care for Mexican Americans.

We believe that this case study exemplifies a powerful approach and provides a useful framework for remodeling delivery systems so that they are more responsive to changing population needs, especially deeply entrenched disparities in public mental health services. Undoubtedly, additional steps will be required to remedy disparities in the availability and quality of care as the responsibility for mental health care is rapidly shifted to large private providers. ♦

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References

1. Mental Health: A Report of the Surgeon General. Rockville, Md, US Department of Health and Human Services, 1999
2. Healthy People 2010: Understanding and Improving Health, 2nd ed. Washington, DC, US Department of Health and Human Services, 2000
3. Proceedings for the National Congress for Hispanic Mental Health: Creating a Vision for the 21st Century. Rockville, Md, US Department of Health and Human Services, 2000
4. Unequal Treatment: Confronting Racial and Ethical Disparities in Health Care. Washington, DC, Institute of Medicine, 2002
5. Race/Ethnic Population Estimates: Components of Change by Race. Sacramento, Calif, California Department of Finance, 1997
6. Alderete E, Vega WA, Kolody B, et al: Lifetime prevalence of and risk factors for psychiatric disorders among Mexican migrant farmworkers in California. American Journal of Public Health 90:608–614, 2000
7. Padgett D, Patrick C, Burns B, et al: Women and outpatient mental health services: use by black, Hispanic, and white women in national insured populations. Journal of Mental Health Administration 21:347–360, 1994
8. Ruiz P: Assessing, diagnosing, and treating culturally diverse individuals: a Hispanic perspective. Psychiatric Quarterly 66:329–341, 1995
9. Vega WA, Kolody B, Aguilar-Gaxiola SA, et al: Gaps in service utilization by Mexican Americans with mental health problems. American Journal of Psychiatry 156:928–934, 1999
10. Vega WA, Kolody B, Aguilar-Gaxiola SA: Help seeking for mental health problems among Mexican Americans. Journal of Immigrant Health 3:133–140, 2001
11. Woodward AM, Dwinell AD, Arons BS: Barriers to mental health care for Hispanic Americans: a literature review and discussion. Journal of Mental Health Administration 19:224–236, 1995
12. Wells K, Klap R, Sherbourne C: Ethnic disparities in unmet need for alcoholism, drug abuse, and mental health care. American Journal of Psychiatry 158:2027–2032, 2001
13. Miller GA: Psychology as a means of promoting human welfare. American Psychologist 24:1063–1075, 1969
14. Chavis DM, Stucky PE, Wandersman A: Returning basic research to the community: a relationship between scientist and citizen. American Psychologist 38:424–434, 1983
15. Vega WA, Kolody B, Aguilar-Gaxiola SA, et al: Lifetime prevalence of DSM-III-R psychiatric disorders among urban and rural Mexican Americans in California. Archives of General Psychiatry 55:771–778, 1998
16. Medi-Cal Mental Health Services in California: Fiscal Years 1993–94 through 1997–98. Statistical Report 01-01. Sacramento, Calif, California Department of Mental Health, 2001
17. Rogler LH, Malgady RG, Constantine G, et al: What do culturally sensitive mental health services mean? The case of Hispanics. American Psychologist 42:565–570, 1987
18. Padilla A, Ruiz R, Alvarez R: Community mental health services for the Spanish-speaking/surnamed populations. American Psychologist 30:892–905, 1975
19. Levine M, Perkins DV: Principles of Community Psychology: Perspectives and Applications. New York, Oxford University Press, 1987
20. Vega WA, Lopez SR: Priority issues in Latino mental health services research. Mental Health Services Research 3:189–200, 2001
21. Vega WA, Scutchfield FD, Karno M, et al: The mental health care of rural Mexican Americans: assessment results. American Journal of Preventive Medicine 1:47–55, 1985