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Mentoring Partnerships for Minority Faculty and Graduate Students in Mental Health Services Research

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Abstract

Objective—The authors developed mentorship programs to train minority junior faculty and advanced graduate students in mental health services research.

Method—The programs target “mentees” in the Southwest United States and offer long-term mentoring, seminars, group supervision, seed funding for peer reviewed research proposals, peer interaction, and weeklong institutes that feature presentations and mentoring by recognized experts.

Results—Evaluations suggest that these programs have influenced participants’ career development. Most mentees have continued to evolve in their research careers, submitted research grant applications, and obtained postdoctoral fellowships, and/or have advanced in faculty positions. Some mentees have expressed an opinion that without the support network that these programs provided, they would have abandoned their academic careers.

Conclusions—Future training efforts should take into account a series of challenges and tensions that affect mentees’ careers and personal lives, including the emotional legacy of discrimination and historical trauma.

Junior scholars interested in pursuing mental health research face numerous obstacles (1–4). These obstacles include the many years and high cost required for medical or other doctoral education, uncertainty of research funding, and a dearth of mentors to help navigate career and research issues. Faculty members early in their academic careers face intense and conflicting time demands on teaching, administration, and clinical work, while trying to balance the caliber and amount of research needed to obtain tenure. The disappearance of funds from clinical sources that previously helped cross-subsidize this research has added to the difficulties that junior faculty now face. For junior minority faculty members and graduate students, economic hardships and emotional pressures associated with a legacy of societal discrimination compound these more general obstacles. As a result, the number of minority scholars who pursue research careers remains relatively small.

Various models have evolved to help minority faculty members and trainees interested in research careers. The minority faculty scholars program at University of California, Los Angeles, under the direction of Dr. Kenneth Wells, provides outstanding training for junior faculty in mental health services research methods (5). Another program that has achieved wide recognition, directed by Dr. Spero Manson at the University of Colorado, focuses on mental health services research training for American Indian investigators (6). However, because of both professional and personal circumstances, many minority junior faculty members cannot move to another city to obtain such training. The Association of American Medical Colleges has supported programs to foster research training for junior faculty, including minorities, but this program does not specifically address mental health services research (7).

In 1998, faculty members in the Departments of Psychiatry and Family and Community Medicine at the University of New Mexico (UNM) began to develop and implement two interrelated training programs funded by the National Institute of Mental Health (NIMH). The programs focus on mental health services research training for minority junior faculty members and graduate students. To put the programs in context (8), New Mexico has ranked third among the 50 states in poverty (18.4%), second in lack of health insurance (20.7%), and 1st to 27th in unemployment, reflecting the economy's volatility. Hispanics and American Indians make up 51.6% of the state's population. Alcohol-induced and drug-induced death rates per population rank the highest in the nation, suicide the third highest, and homicide the fifth highest. In the long term, we expect our training programs to address the mental health problems in the state and the region. In this article, we describe our efforts to develop and evaluate the training programs, their early results, and some lessons learned.

Origins of the Programs

Minority Research Infrastructure Support Program (M-RISP)

Initiated by two Hispanic and two American Indian junior faculty members in the UNM Departments of Psychiatry (Drs. Rodrigo Escalona, Ervin Lewis, and Irene Ortíz) and of Family and Community Medicine (Dr. Bonnie Duran), our group first applied to NIMH in 1997 for funding to establish a Minority Research Infrastructure Support Program (M-RISP). Under the terms of this NIMH program announcement, an M-RISP application proved suitable because the two departments had received relatively little NIMH grant funding until then and because UNM had achieved the designation as a minority institution from its high numbers of minority faculty members and students. Our application emphasized research focusing on the mental health problems of minority populations seen in primary care settings. The senior faculty whom the junior faculty invited to direct this program (Drs. Waitzkin and Yager) had conducted research with a similar focus before.

In the M-RISP application, we proposed three specific aims: 1) to develop the research capacity of junior minority faculty and graduate students (primarily American Indian and Hispanic) at UNM in order to be able to conduct rigorous mental health research within primary care settings; 2) to increase the institution's capacity to conduct mental health research among populations of color within primary health care settings by developing close collaborative linkages with community-based organizations and agencies serving American Indian and Hispanic populations; and 3) to facilitate minority-focused mental health services research collaborations between the Departments of Psychiatry and of Family and Community Medicine.

Our initial M-RISP application included support for a core group to provide administration, biostatistical consultation, and data management; expert consultants based outside UNM; and four junior faculty research projects, two of which were funded. The M-RISP was funded at

approximately \$250,000 per year for a period of 3 years (February 1998-January 2001). In 1998, our group started to meet on a weekly basis for seminars and supervision, and the funded junior faculty members also began to meet individually with their mentors and consultants. Beginning in 1999, we folded the M-RISP activities into an expanded mentorship program that could serve mentees based in the entire Southwest region rather than only at UNM.

New Mexico Mentorship and Education Program (MEP)

Originally, we hoped that the M-RISP grant would allow us to offer a mentorship program that would include an annual institute with participation by recognized minority investigators in mental health services research. However, funding limitations in the M-RISP precluded that possibility. To offer expanded mentorship and education for additional minority faculty members at UNM and other Southwest educational institutions, we wrote a separate application and received additional NIMH funding for the MEP. While the M-RISP has focused on development of research infrastructure at UNM during its 3-year duration, the MEP has expanded mental health services research training to trainees based outside UNM.

Initially funded in 1999, the MEP adopted the following specific aims: 1) to teach trainees (referred to as “mentees”) basic research methods in the field, with an emphasis on how to write proposals and manage funded proposals; 2) to introduce mentees to important recent findings of mental health services research, with special emphasis on disparities in mental health outcomes that affect minority populations of the Southwest; 3) to network mentees with research mentors; 4) to help mentees with various aspects of “career building;” 5) to produce a mental health services research curriculum that is exportable to other educational institutions; and 6) to initiate an ongoing process of training in mental health services research on an annual basis. The program was funded at approximately \$150,000 per year for 5 years between 1999 and 2005, and after the NIMH National Advisory Mental Health Council designated the MEP as a high program priority, it has been approved for funding at approximately \$250,000 per year for 5 additional years between 2005 and 2010.

We have tried to meet these aims through several structured activities. An intensive 1-week institute introduces mentees to mental health services research. Longer-term mentorship follows throughout the year. We have disseminated information about the MEP by word of mouth, mailed announcements and letters, and e-mail from the program directors and UNM-based mentees. A committee of faculty members and previous mentees has selected new cohorts of mentees based on nominations by supervisors and peers, a statement of interest and commitment by the applicants, and recommendations from colleagues and mentors. The grant has covered travel expenses for the mentees, travel expenses and honoraria for a group of internationally prominent mentors, ongoing administrative activities such as scheduling conference calls for the mentees and mentors, and the annual 1-week training institute. Ongoing indepth evaluations of mentees’ needs, critical feedback, and scheduled mentors’ conference calls inform the plan for each subsequent institute.

Training Method

M-RISP

The Minority Research Infrastructure Support Program (M-RISP) has provided an individualized and group-learning program for junior minority scholars at UNM. At a weekly meeting, participants have focused on planning, project review, supervision of the funded projects, and presentations by M-RISP members and others about ongoing research projects. Attendance at the meetings has included the directors, investigators, faculty and staff from the biostatistics and data management group, other minority faculty, graduate students, and research assistants. The M-RISP also has offered administrative support and technical

assistance in computer programming, data management and analysis, and statistical and psychometric consultation.

Mentees (Appendix 1) availed themselves of mentoring from experienced faculty members at both UNM and other institutions. When a funded American Indian junior faculty member met with Dr. Spero Manson and his group at UNM and at the University of Colorado, she deepened her understanding and practical experience with community-based quantitative and qualitative research methods. Our funded Hispanic junior faculty member met with Dr. Javier Escobar at both UNM and the University of Medicine and Dentistry of New Jersey, where he learned in greater depth about psychiatric assessment techniques applicable to primary care settings. Others who received mentoring through the M-RISP included:

- Three Hispanic psychiatrists who focused on pharmacological treatment of mental health disorders in primary care settings
- An American Indian student in medical sociology who received extensive mentoring for her Ph.D. dissertation
- A Hispanic female physician and occupational medicine specialist who developed research skills to study the effects of training heroin users and their families in the use of naloxone in overdose situations as a potential means of decreasing heroin-related deaths
- An American Indian pharmacist interested in end of life care-giving in Native communities
- An American Indian psychiatrist and family practitioner focusing on complementary and alternative treatments in Indian communities
- A female anthropologist who, as a postdoctoral fellow, focused on the impact of mental health policy changes on mental health services for American Indians
- A Hispanic graduate student who completed her Ph.D. dissertation in health education

In addition, one of the funded projects recruited seven minority students as research assistants. One student later finished her M.D. degree; four others finished their master's degrees and either are conducting minority research or are in leadership training programs with the Indian Health Service. Two non-minority mentees regularly participated in the M-RISP activities because their research focused on American Indian mental health and health issues: a postdoctoral fellow in anthropology and a nurse who defended her Ph.D. dissertation in health education. Because trainees participated in the program over the course of several years, they developed among themselves a sense of continuity and mutual support, despite their diverse professional disciplines.

MEP

Mentees in the University of New Mexico Mentorship and Education Program (MEP) have come from UNM and elsewhere in the Southwest region; more recently, some additional mentees have traveled from other regions because of their strong interests in American Indian or Hispanic mental health (Appendix 2). Mentees' disciplines have included psychology, psychiatry, social work, public health, occupational medicine, pharmacy, sociology, anthropology, and nursing. Fourteen mentees, including those from UNM and from elsewhere in the Southwest region, participate in each annual cohort; all have elected to remain in the program for 2 years. The training program builds its activities around an intensive 5-day institute that occurs annually.

An executive committee composed of senior faculty members, recent mentees, and current mentees (including the program's coordinator, an advanced graduate student) has planned the MEP training activities. This committee has considered every mentee's training needs and personal background, along with each mentor's research strengths and personal characteristics, in matching mentees and mentors for their interaction at the annual institute and during the subsequent time period. Common areas of interest are a major consideration in constructing these matches. The committee also informs all mentors and mentees that these matches are tentative; they can initiate changes in the matches at the institute or during the mentormentee relationship.

Faculty mentors, who include internationally recognized researchers (Appendix 3), make presentations about pertinent current research concepts, methods, and findings. Extensive program teaching manuals consisting of lecture notes, PowerPoint or similar electronic materials, and pertinent publications supplement mentors' oral presentations. Mentors, who also come from minority groups and/or focus their research efforts on minority or other underserved communities, plan these sessions based on the mentees' stated needs and presentations of preliminary work during the institute.

Training institutes have emphasized the following activities: research methods, grant applications and management, tutorial sessions, one-on-one mentoring, perspectives of the community advisory board, informal get-togethers, and peer support groups. A website presents detailed curriculum materials prepared for the institutes (<http://hsc.unm.edu/fcm/mep>). The following paragraphs summarize the content and emphases under each activity.

Research Methods—The presentations on research methods cover topics tailored to mentees' needs:

- Selection of research questions
- Research design
- Research ethics and responsibility
- Human subjects' Institutional Review Board requirements
- Data collection using structured and semistructured diagnostic instruments
- Principles of quantitative and qualitative data analysis
- Pertinent statistical techniques
- Clinical epidemiology as applied to mental health services research
- Collaborative methods in community-based participatory research
- Multimethod research including pertinent ethnographic techniques
- Experimental and quasi-experimental techniques
- Outcomes evaluation
- Intervention research
- Links between research findings and policy making

Grant applications and management—Instruction in writing proposals, managing grants, and funding concerns in career development includes:

- A mock NIMH review group session coordinated by faculty members with extensive experience with these review groups
- Realities of getting a proposal funded—networking, informal communication, shepherding the proposal through internal and external review committees
- Budgeting time, effort, and funds
- Negotiations with chairs and other supervisors concerning protected time for research
- Practical issues in selecting and managing a research team, including coinvestigators, data managers, research assistants, and administrative personnel
- Statistical analysis
- Choosing and working with consultants
- Balancing research with other professional and personal activities

Tutorial sessions—In tutorial sessions, mentees present their research proposals for group discussion and feedback. Tutorial sessions have aimed to provide each mentee with specific advice regarding research design, implementation, funding strategies, and career development. These sessions encourage intellectual support and enable each mentee to benefit from the shared knowledge that mentors and mentees bring to the group.

One-on-one mentoring—Individual meetings between mentors and mentees take place during the institute. These meetings permit mentees to articulate specific objectives for research and career development, to identify areas in which the mentor can provide advice and support, to develop plans for meeting his or her objectives, and to lay the groundwork for the mentorship process for the following year. Although the mentees and mentors themselves define the expectations for their relationships, the program's executive committee expects the mentees and mentors to describe the expectations explicitly and to report progress toward goals approximately 3 times per year.

Longer-term relationships between mentors and mentees have continued for at least 1 year after the annual MEP institute. The executive committee expects that mentee-mentor contact occur at least every 3 months and that this contact be tracked in the regular reporting process throughout the year. UNM-based mentors have met with local mentees at least once a month. External mentors have spoken regularly with mentees by phone and in person as is feasible. Some in-person meetings have occurred at the mentors' home institutions so that mentees may learn more about the research organization and staffing arrangements that their mentors have found helpful. Discussions with mentors center on research issues and career development. Mentors also make themselves available to help advocate for their mentees in negotiations concerning key requirements for successful career development, including protected time for research, administrative support, and space.

Community advisory board sessions—The institutes prominently feature a session provided by the program's community advisory board. Representing ethnic communities and advocacy organizations, panelists discuss the realities of research in minority and rural communities. These sessions provide important community-based perspectives often lacking from scholarly discussions of mental health issues. The sessions also highlight opportunities for community-based participatory research that actively involves local communities in research design, implementation, and follow-up. A major publication in a primary care journal has presented the perspectives of community advisory board members (9).

Informal get-togethers—Such gatherings take place during the institutes. For instance, dinners and parties provide an opportunity for faculty members and mentees to get to know one another, further promoting a sense of camaraderie and group identity.

Mentee support groups—After the annual institute, each cohort of mentees holds regular conference-call meetings as a support group. This activity complements the mentorships by providing an opportunity to address the challenges and pressures that junior minority faculty and graduate students face within academic institutions. The support group also counters the sense of isolation that an academic position often engenders for young minority faculty. This process has helped the mentees develop and maintain a sense of continuity among themselves. Because almost all mentees have continued to participate in the program over a period of 2 to 3 years, this experience also has fostered longer-term linkages among mentees, which they have maintained despite the diversity of their disciplines.

Results

M-RISP

Both of the funded mentees under the 3-year Minority Research Infrastructure Support Program (M-RISP) have completed their proposed research, presented their findings at meetings, and published three peer-reviewed articles from their data sets in major psychiatric and public health journals (10–12). The American Indian female faculty member specializing in public health conducted a psychiatric screening of Indian women seen in a primary care clinic at the local Indian Health Service hospital, focusing especially on histories of childhood abuse and intimate partner violence. Through her activities in the M-RISP, she prepared, submitted, and successfully obtained a NIMH K-01 award, with Dr. Waitzkin as her mentor. More recently, she has obtained tenure in her academic position. The Hispanic psychiatrist studied somatization and post-traumatic stress disorder (PTSD) among patients at a Women's Clinic at the Albuquerque Veterans Administration (VA) Hospital. Subsequently, he received funding to assess psychopharmacologic approaches to PTSD and advanced in his academic position at the VA.

Other M-RISP participants also have moved forward in their careers. Three Hispanic psychiatrists have received funding primarily for biological research in schizophrenia and PTSD. An American Indian graduate student completed her Ph.D. in medical sociology, obtained a tenure-track faculty position in psychiatry at another prominent institution, and more recently has returned to UNM as a faculty member. The Hispanic occupational medicine physician received a K-23 award from the National Institute on Drug Abuse (NIDA) and has obtained a faculty position. The American Indian pharmacist and psychiatrist obtained senior administrative positions with the Indian Health Service, where they used their research skills to coordinate their own and others' research efforts. An anthropologist obtained a NIMH R03 and later an R01 research grant to study the impact of Medicaid managed care on mental health services, as well as a NIMH R23 award to assess mental health services for minority gays and lesbians living in rural areas. A Hispanic female health educator joined the public health faculty at UNM and assumed responsibility for the MEP evaluation.

MEP

We have conducted an intensive ongoing evaluation of the Mentorship and Education Program (MEP). A prominent UNM faculty member (Dr. Nina Wallerstein), who has expertise in public health and program evaluation and who did not involve herself in planning the program, carried out a formal evaluation of the MEP institutes and mentoring experiences between the institutes. A graduate of the UNM Masters in Public Health program (Lorenda Joe, originally from the Navajo nation) assisted in the evaluation activities. The evaluation has addressed the following

areas: satisfaction with and learning from each of the institutes, the mentor/mentee relationships, professional development, and mentee-to-mentee relationships. An interview instrument was created for both mentors and mentees and was sent by e-mail in preparation for follow-up telephone interviews. Mentees' feedback in the evaluation has led to substantial changes in the institutes and in mentoring relationships. These changes have included reorganizing the mentors' institute presentations to emphasize mentees' specific research needs rather than a comprehensive overview of the mentors' own research; initiating a peer mentor system in which recent graduates from the MEP mentor current mentees; and enhancing the specific sessions on the preparation of research grant proposals and articles for publication.

Through the evaluation process, the executive committee has monitored closely the mentee-mentor relationships. As expected, matches that have involved a close sharing of common research interests have led to enhanced perceived quality of the mentorship relationships. The evaluation process has determined that approximately 10% of the matches between mentees and mentors did not proceed successfully. Reasons for unsuccessful matches have included incompatibility of schedules, geographic distance, and personality differences. In these cases, the executive committee suggested new matches, after consulting in depth with the affected mentees about unmet needs. Generally the new matches fulfilled the mentees' stated needs in a more satisfactory way.

According to the evaluation, matches that involved the same gender and/or ethnicity/race between mentors and mentees usually enhanced mentees' sense of support and commonality of experience. In particular, female mentees reported that they were able to obtain useful perspectives on balancing careers and family life from female mentors. American Indian mentees frequently reported an enhanced experience with Indian mentors.

Two of the proposed outcome measures in the MEP grant applications assess mentees' grant proposals and publications. As of 2004, twenty-nine MEP mentees in the first two cohorts had submitted 31 grant proposals, of which 24 eventually have been funded. In the subsequent cohort of 13 new trainees entering in March 2003, nine trainees submitted 11 grant proposals during the following 6 months. Regarding publications, the 13 MEP mentees in the first cohort achieved 27 published articles in prominent peer-reviewed journals within their fields as principal author within 2 years after the first institute (13–16). Publications from subsequent cohorts have begun to appear as the mentees have completed their research projects facilitated by the MEP (17–20). At least four recent mentees have reported that the MEP contributed directly to their progress and completion of the Ph.D degree.

In addition to the accomplishments reported in Appendices 3 and 4, mentees have provided narrative evaluations. Excerpts from the MEP's first cohort demonstrate the program's substantial impacts on the mentees' lives and careers (Appendix 1).

Strengths, Limitations, and Challenges for the Future

We take pride in the mentees' accomplishments. Our evaluation has clarified direct links between the training activities and measurable outcomes, such as grant proposals and publications. Likewise, the mentees' narrative evaluations suggest that these programs have contributed to their progress. We conclude that focused efforts in training minority junior faculty and graduate students in mental health services research can facilitate career development.

In these programs, we also have identified several limitations and challenges for the future. For instance, mentees have voiced conflicts regarding competing personal needs; divergent demands of family, peers, and institutions; and conflicting values. Mentees wishing to do research have struggled with also wanting predictable and secure salaries and funding sources,

with emphasis on “hard money.” Among physicians and mental health professionals, clinical demands have diverted them away from research. For women and some men with families, additional demands have consumed time and energy. Since clinicians in academic settings usually can earn adequate salaries and can support their families through clinical and teaching activities, mentees have experienced conflict in assuming the risk of giving up this relatively secure funding for less certain grant revenues. Finally, since the beginning of the programs we have planned to turn over the leadership as principal investigators to minority faculty members as they advance in their careers. However, because minority faculty members at UNM have not yet obtained competitive R01 research grants as principal investigators, they have chosen to keep the senior faculty members as directors until they do reach the milestone of a funded R01 project.

Reflecting another limitation of the programs, mentees also have experienced substantive conflicts between pursuing research versus other work that they believed would exert favorable effects within their institutions or communities. Some junior faculty members have decided to pursue high-level administrative careers within minority-focused institutions. In such roles (for instance, among mentees who have accepted positions in the Indian Health Service or local service organizations), their knowledge of mental health services research plays an important role in collaborative efforts with researchers who focus on the unique needs of their target populations. Some clinicians have required firsthand experiences to decide which research activities proved most appropriate for them. As a result, these mentees have chosen to pursue research on biological problems in mental health rather than services research. Competing teaching responsibilities sometimes have affected the ability to conduct research, especially for mentees based in state universities that do not customarily allocate time for research to teaching faculty members. Given these issues, the fact that many of the junior investigators have obtained K awards and other grants within 2 years after joining the training programs suggests that these efforts have achieved some degree of success. The passionate narrative evaluations that mentees have provided also attest to the programs’ generally favorable effects on their lives and careers.

The funding and infrastructure required to maintain career development programs for minorities in mental health services research remain fragile and need sustained support by NIMH and other funding agencies. Through the M-RISP and MEP, we have tried to create an umbrella mechanism to develop synergistic funding sources and to generate wider educational opportunities. To enhance our mentees’ research careers, we have provided an atmosphere in which they could develop networks of mutual support that would extend to regional and national groups of peers and mentors. However, a major limitation involves UNM’s inability, as a relatively resource-poor institution, to find other major financing to support these efforts. Realistically, universities enjoy few sources of funding to develop and sustain such training efforts. In future programs, NIMH and other funding agencies may want to consider the challenges and successes that we have witnessed in efforts to facilitate research careers for members of minority and/or other underserved groups.

The training institutes and the partnerships forged among our mentees, mentors, program directors, and community advisory board members have offered inspiration and support for new directions of mental health research. Proposed research topics have addressed the mental health needs of minority communities and have contained elements of mental health services research at the interface of primary care. The potential effects on mental health appear far-reaching, as the partnerships and proposed research activities target racial and ethnic disparities in common and/or life-threatening mental health issues, such as trauma and abuse, depression, anxiety, somatization, post traumatic stress disorder, disorders arising from bereavement, and suicide. Educational, research, and service institutions gain several advantages by training minority faculty. These advantages include easier entry to communities with major health and

mental health disparities, including a reduction in time to establish trust; community-university research collaborations that prove less difficult to form than with “outsider” researchers; opportunities to evaluate culturally based interventions and indigenous approaches to mental health; and advancement of community based participatory research (21).

To our knowledge, data remain unavailable to compare our results with those of training programs that have not targeted mentees specifically from minority groups and underserved communities. For instance, NIMH has sponsored a variety of training programs, most of which have not aimed specifically to recruit trainees similar to those whom our programs have prioritized. Despite our overall favorable results, we cannot assess our evaluation data in light of similar data from other types of programs. We do not know if attempts to replicate our efforts at other institutions would lead to similar results, even though we suspect that the approaches used in the M-RISP and MEP may prove helpful elsewhere. In addition to program modifications that take into account institutional differences in resources and the pool of targeted trainees, other educational institutions may encounter varying challenges in developing and maintaining such programs without the assistance of extramural grant support. We suggest that NIMH take the lead in encouraging attempts to conduct inter-institutional comparisons among training programs, with more standardized quantitative and qualitative methods that can assess the subtle issues that we have identified as important in trainees’ career development.

How can educational programs best address the needs and aspirations of people from minority or otherwise underserved communities as they contemplate research careers? Such efforts must encourage high standards in the conceptual and methodological work that quality research entails. Based on our experiences, we believe that successful training programs also must go beyond high technical standards. In addition, these programs must provide supportive and non-threatening mentoring within networks of social support that recognize an emotional legacy of discrimination and historical trauma. Without such sensibility, programs to enhance research careers likely will replicate the patterns of failure and injustice with which we have become all too familiar.

Acknowledgments

To the memory of Dr. Ervin Lewis, whose passion about justice and education for American Indians and other groups sharing a history of discrimination and trauma inspired the efforts that the authors describe here.

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APPENDIX 1

Faculty Members Participating as Mentors in the New Mexico Mentorship and Education Program (MEP), Initial Cohort*

- Arturo Campaña, M.D., Professor of Psychiatry at the Central University of Ecuador, Quito, and Executive Director of the Center for Research and Consulting in Health. He has directed many research projects funded by the World Health Organization, the Pan American Health Organization, and international philanthropic foundations.
- Javier I. Escobar, M.D., Professor and Chair of the Department of Psychiatry at the University of Medicine and Dentistry of New Jersey. He has served as co-principal investigator of the Los Angeles Epidemiologic Catchment Area Project, conducted extensive research on ethnicity, mental health disorders, and somatization, funded by NIMH, the World Health Organization, and the Veterans Administration, and has served on the NIMH National Advisory Health Council.
- Keh-Ming Lin, M.D., M.P.H., Professor of Psychiatry at UCLA and Director of the NIMH/Harbor-UCLA Research Center on the Psychobiology of Ethnicity. His research focuses on cross-cultural psychiatric nosology and cross-ethnic psychopharmacology.
- Spero M. Manson, Ph.D., Professor and Director of the Division of American Indian and Alaska Native Programs in the Department of Psychiatry at the University of Colorado. Dr. Manson has extensive experience as a Center director, teacher, and mentor for the development of minority faculty. He has served as principal investigator of multiple research projects on mental health issues among American Indians and on numerous NIMH review committees.
- Philip A. May, Ph.D., Professor of Sociology and of Family and Community Medicine, and former director of the University of New Mexico Center on Alcoholism, Substance Abuse, and Addictions (CASAA), has carried out research, education, and prevention programs with American Indians concerning suicide, fetal alcohol syndrome (FAS), motor vehicle crashes, adult alcohol epidemiology, and public health planning and policy. He served as part of NIMH and Indian Health Service research teams on suicide among American Indians and as director of the first IHS pilot projects on Fetal Alcohol Syndrome and with the National Indian FAS Prevention Program.
- Bernice Pescosolido, Ph.D., Chancellor's Professor of Sociology at Indiana University, is best known for developing a widely applicable conceptual model concerning health care utilization and compliance, and for studies on social networks, mental illness, and community-based care. She has developed a path-breaking educational program for undergraduate and graduate students concerning health and mental health services and also has served on national committees focusing on education in these fields.
- Harold Alan Pincus, M.D., Professor and Executive Vice-Chair of the Department of Psychiatry at the University of Pittsburgh and Western Psychiatric Institute, is a senior research scientist and director of the RAND Pittsburgh Health Institute. He is a former Deputy Medical Director of the American Psychiatric Association and the founding director of the Association's Office of Research.
- Greer Sullivan, M.D., M.S.P.H., an experienced, senior health services researcher at the University of Arkansas, heads a Mental Illness Research, Education and Clinical Center (MIRECC) for the Veterans Administration, devoted to services research and education. Her research has focused on evaluating services for impoverished, largely rural minority populations.
- William A. Vega, D. Crim., Professor in the Department of Psychiatry at the Robert Wood Johnson Medical School of the University of Medicine and Dentistry of New Jersey, has published extensively in mental health epidemiology and services research funded by NIMH, and in the substance abuse literature. His research program covers both adolescents and adults, with a specialization in cross-cultural research, immigration, and policy issues associated with health and mental health care among Latinos.
- Howard Waitzkin, M.D., Ph.D., Professor of Sociology and of Family and Community Medicine and Program Director for the MEP, has conducted extensive research on health and mental health services in projects concerning minority and other underserved populations. He has served as principal investigator in several NIH and NIMH-supported research projects, including an NIMH-funded study of the somatization and trauma among minority patients in primary care settings, a recent NIMH-funded research grant on global trade and mental health services, and a study supported by the Agency for Healthcare Research and Quality, which focuses on the impact of Medicaid managed care on health and mental health services. He was selected among the inaugural group of 12 U.S.-based Fulbright New Century Scholars, who have focused on the theme of "global health in a borderless world." Other honors include an award as a Fellow of the John Simon Guggenheim Memorial Foundation and the Jonathan Mann Award for Lifetime Commitment to Public Health and Social Justice Issues from the New Mexico Public Health Association.
- Patricia Silk Walker, Ph.D., R.N., a nurse epidemiologist who directs the program in American Indian Research in the Department of Psychiatry at the Oregon Health Sciences University, is also with the Department of Public Health and Preventive Medicine. Her research has focused on studies of alcoholism and drug abuse among American Indian adolescents.
- Dale Walker, M.D., Professor of Psychiatry, Public Health and Preventive Medicine and Director of the Center for American Indian Health, Education and Research at the Oregon Health Sciences University, has focused his research career on American Indian mental health. A feature of Dr. Walker's research has been the acquisition process by which American Indian children begin to have alcohol and drug abuse problems.
- Nina Wallerstein, Dr.P.H., Professor and Director of the Masters in Public Health Program in the Department of Family and Community Medicine at the University of New Mexico, has adapted the empowerment education ideas of Brazilian educator Paulo Freire to adult education, public health, and mental health issues in the United States. She has served as faculty director of the Adolescent Social Action Program and cofounder of the community organizing training and participatory evaluation model for healthier communities and infrastructure change in New Mexico.
- Joel Yager, M.D., Professor and Vice Chair for Education and Academic Affairs, Department of Psychiatry, University of New Mexico, and Program Director of the M-RISP, has conducted research on depression and anxiety disorders in primary care settings, with a focus on increasing the ability of primary care physicians to recognize and to treat these disorders. At UNM and previously at UCLA, he has participated in training minority psychiatrists for service to minority patients, as well as clinical training in minority mental health. He also has continued his services research efforts in studies of practice guideline implementation and evaluation (with the American Psychiatric Association), eating disorders, and educational evaluation. Dr. Yager recently has served on a committee of the

Institute of Medicine charged with formulating proposals for increasing the integration of research training into general psychiatry residency training.

* Mentors in later cohorts have included Margarita Alegría, Ph.D. (Cambridge Health Alliance and Harvard Medical School), Bonnie Duran (UNM), Mario Cruz, M.D. (University of Pittsburgh), David Dunaway, Ph.D. (UNM), Margaret Menache, Ph.D. (UNM), Tassy Parker, R.N., Ph.D. (Medical College of Wisconsin [College of Wisconsin], then UNM), Lonnie Snowden, Ph.D. (University of California, Berkeley), Rosalie Torres, Ph.D. (University of Nebraska, Lincoln), Les Whitbeck, Ph.D. (University of Nebraska, Lincoln), and Karina Walters (University of Washington). Drs. Cruz, Duran, Parker, Torres, and Walters participated as previous MEP mentees.

APPENDIX 2

Excerpts from Narrative Evaluations of the MEP's First Cohort

Mentees based at UNM

- "I appreciate the substantial encouragement and support for my grant applications that I have received from all involved in the MEP program."
- "This program has been one that has offered tremendous support, training, and opportunities for networking to the minority mental health medical school faculty that have participated. The mentors have been extraordinary in their didactic presentations and the continued support of mentees in academic medicine."
- "I can confidently state that without the dedicated and collaborative efforts of my MEP mentors, my research career would not have been so swiftly or successfully launched. Personally, the opportunity to network with other minority mental health research mentees who are at various stages of their own career development is tremendously inspirational and motivating."
- "Now I am able to conduct research of my own, as well as think critically about the research other individuals contribute to the field."

Mentees based outside UNM

- "As a participant in the mentorship program, I have found the program to be inspirational in its efforts as well as committed to providing support to further mental health research."
- "This year I underwent a successful probationary third year review and my participation in MEP was perceived as very positive. ... The Tenure and Promotion Review Committee was particularly impressed with the caliber of the training program and prestige of internal and external participatory faculty and presenters."
- "With the generous support and guidance of both the MEP mentors and mentees, I have successfully obtained an NIMH-funded Career Development Award for New Minority Faculty to pursue research on American Indian mental health."
- "This program is critical for the professional development and training of American Indian researchers ... I have been amazed at the amount of support senior researchers have offered and how accessible they have been."
- "The collaborative environment, regular contact with my mentor, and the opportunity to interact with other junior faculty peers has been an academic highlight of my professional career."
- "Since my participation in the MEP, I have submitted two research grants to the NIMH. I believe my MEP participation contributed to my ability to write these research grants and to my motivation to conduct rigorous mental health services research."
- "The MEP Institute served as a catalyst for me to refocus my research career. ... Since that time I have submitted an additional 2 proposals to NIH as principal investigator. ... The UNM-MEP is one important solution in addressing the under-representation of ethnic minorities in health research."
- "The significance of that [MEP] experience for my professional development extends beyond words ... My attendance at this year's MEP institute, however, completely transformed my thinking on the subject [American Indian mental health services research] and provided me with desperately needed direction and instruction with regards to mounting a competitive application for NIMH funding. ... the MEP institute facilitated a personally-rewarding engagement with the small community of aspiring researchers of color who are exceptionally dedicated to tackling the persistent array of psychological difficulties encountered in our communities."
- "I would like to specifically acknowledge the dialogues I had with Bill Vega, D. Crim., and Spero Manson Ph.D. during the institutes and the ongoing supervision from Greer Sullivan, M.D., as being particularly useful in helping me formulate my plans for an R-01 application which I submitted in February of this year. ... The program is indispensable and uniquely serves the needs of developing researchers such as myself."
- "The opportunity to connect, dialogue, and brainstorm with other Native researchers helped me to flesh-out my own mental health services research agenda. ... For example, my participation as a mentee has already stimulated additional research enterprises with another mentee and we are currently planning on submitting an R01 application. ..."

APPENDIX 3

Mentees in the Minority Research Infrastructure Support Program (M-RISP)*

Mentees' Ethnicity, Gender, and Degrees	Professional Status at Time of Participation	Area of Research	Outcome/Status
American Indian female (member of the Opelousa/Coushatta tribes) Dr.P.H., public health**	Assistant Professor, Family & Community Medicine, M.P.H. Program	Trauma and mental health disorders in American Indian women at an Indian Health Service primary care clinic	Successful NIMH K-01 award application through M-RISP activities; received tenure as Associate Professor
Hispanic male M.D.**	Assistant Professor, Psychiatry	PTSD and somatization in women treated at a VA primary care clinic. Medication trials for PTSD	Research shift to clinical psychopharmacology New funding to conduct medication trial for PTSD.
Hispanic female M.D.	Clinician, occupational medicine and drug abuse management	Naloxone distribution to heroin addicts and family members to treat witnessed overdoses	Successful NIDA K-23 application; appointed Assistant Professor, Family & Community Medicine
Hispanic male M.D.	Assistant Professor, Psychiatry	Neuroimaging in schizophrenia	Obtained funding from NARSAD
American Indian male (member of the Dine/Tohona O'odham Nations) Pharm.D.	Assistant Professor, Pharmacy	End of life care in Pueblo Indians	Appointed Chief of Pharmacy Services, IHS Hospital
Hispanic female M.D.	Assistant Professor, Psychiatry	Depression and dementia in Hispanic elderly	Clinician educator tract; research grant application to VA
American Indian female (member of the Seneca Nation) R.N., Ph.D. student	Graduate student, Medical Sociology	Health perceptions of American Indian adolescents	Coordinator of MEP, completed Ph.D.; funded via NIMH minority supplement to P30 grant; appointed Assistant Professor, Psychiatry and Family & Community Medicine
Hispanic female Ph.D. student	Assistant Professor, Public Health	Community-based health and mental health education in New Mexico	Completed Ph.D.; developing research proposal; MEP evaluator
Hispanic male M.D.	Assistant Professor, Psychiatry	Neuro-imaging in PTSD	Active research; funded by UNM Resource Allocation Committee
Caucasian female Ph.D. (Anthropology)	Postdoctoral Fellow, Family & Community Medicine	Help-seeking in American Indians; effect of Medicaid managed care	Active research; successful NIMH K-23 application; successful NIMH R03 and R03 research grant applications
Caucasian female R.N., Ph.D. student (Health Education and Nursing)	Program coordinator, Family & Community Medicine	Health beliefs of American Indians	Assistant Professor (Nursing); completed Ph.D.

* Most M-RISP mentees also have participated in MEP activities.

** These mentees' research projects received direct financial support from the M-RISP.

Abbreviations: Dr.P.H., Doctor of Public Health; IHS, Indian Health Service; J.D., Doctor of Law; MEP, New Mexico Mentorship and Education Program; M.D., Medical Doctor; M.P.H., Masters in Public Health; M-RISP, Minority Research Infrastructure Support Program; M.S.W., Masters of Social Work; NARSAD, National Alliance for Research on Schizophrenia and Depression; NIMH, National Institute of Mental Health; Ph.D., doctor of philosophy; PharM.D., doctor of pharmacy; PTSD, post-traumatic stress disorder; UNM, University of New Mexico; VA, Veterans Administration.

APPENDIX 4

Mentees in the New Mexico Mentorship and Education Program (MEP), Initial Cohort*

Mentees' Ethnicity, Gender, and Degrees	Professional Status at Time of Participation	Area of Research	Outcome/Status
American Indian female (member of the Lac Courte Oreilles band of Ojibwe) Ph.D., clinical psychology	Instructor, University of Colorado Health Sciences Center, Department of Psychiatry, Division of American Indian and Alaska Native Research	Parental attachment style in the psychological well-being of American Indian children	Successful NIMH K-01 award application; Assistant Professor
American Indian female (member of the Navajo Nation) Ph.D., clinical psychology	Administrative Clinical Director, United American Indian Involvement, Inc., Los Angeles, California	Acculturation, identity, mental health and substance abuse issues among American Indians	Continues position with United American Indian Involvement Inc, pursuing children's' mental health services grant
African American/Hispanic male M.D.	Assistant Clinical Professor Department of Psychiatry, University of Arizona	Interplay of organizational structure and culture on patient clinical outcomes and issues of patient- doctor communication	Successful NIMH K-23 award application
Hispanic female Ph.D., socio-cultural psychology	Faculty Associate, University of Colorado Health Sciences Center, Department of Psychiatry, Division of American Indian and Alaska Native Research	Cultural determinants of health behavior, health promotion and disease prevention among underserved populations	Co-investigator, National Cancer Institute R01 research grant on psychosocial barriers to cancer prevention among Hispanic women
American Indian (member of the Gros Ventre tribe of Montana) male Ph.D., clinical and community psychology	Assistant Professor, Committee on Human Development, University of Chicago	Applications of cultural psychology to clinical problems in American Indian communities	Successful applications for Kellogg Leadership Fellowship, Ford Foundation postdoctoral fellowship; research grant, National Network for Aboriginal Mental Health Research (Canada)
Hispanic male M.D.	Assistant Professor, Department of Psychiatry and Biobehavioral Sciences, UCLA	Treatment and skills training of severely mentally ill Latinos, predominantly with schizophrenia	Successful NIMH K-08 grant application
American Indian (member of the Standing Rock Sioux tribe) female MSW, J.D.	Assistant Professor, School of Social Work, University of Southern Colorado	American Indian family mental health issues; interface of law and American Indian mental health	On academic leave to fulfill an elected position in her tribal community
American Indian female (member of the Choctaw tribe of Oklahoma) Ph.D., social welfare	Assistant Professor, School of Social Work, Columbia University	Urban American Indian identity and mental health, alcohol use, HIV risk, multi-cultural competency in social work	Successful NIMH R01 research grant application; appointed Associate Professor with tenure, School of Social Work, University of Washington

* Most M-RISP mentees also have participated in MEP activities.