Innovative Approaches to Promote a Culturally Competent, Diverse Health Care Workforce in an Institution Serving Hispanic Students

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Abstract

The underrepresentation of minorities among health care providers and researchers is often considered one of the contributing factors to health disparities in these populations. Recent demographic shifts and the higher proportion of minorities anticipated among the newly insured under the Patient Protection and Affordable Care Act make the need for a more diverse and culturally competent health care workforce an urgent national priority.

The authors describe current and future strategies that have been developed at the College of Health Sciences and Human Services at the University of Texas–Pan American (an institution with 89% Hispanic students in 2012) to prepare a culturally competent and ethnically diverse health care workforce that can meet the needs of a diverse population, especially in the college's own community. The college graduates approximately 650 students annually for careers in nursing, physician assistant studies, occupational therapy, pharmacy, rehabilitation services, clinical laboratory sciences, dietetics, and social work. The college's approach centers on enriching student education with research, service, and community-based experiences within a social-determinants-of-health framework. The approach is promoted through an interdisciplinary health disparities research center, multiple venues for community-based service learning, and an innovative approach to improve cultural and linguistic competence. Although the different components of the college's approach are at different developmental stages and will benefit from more formal evaluations, the college's overall vision has several strengths that promise to serve as a model for future academic health initiatives.

The underrepresentation of racial and ethnic minorities in the health care professions is often considered one of the contributors to health disparities in these populations.[1,2] The reasons that underrepresentation leads to poor health outcomes and poor health care quality include cultural distance and language discordance issues between patients and health care providers.[3–6]

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Among U.S. minority groups, Hispanics are currently the largest and fastest-growing group, accounting for 17% of the population,[7] a number that is projected to increase to over 30% by the year 2060.[8] Hispanics are also expected to be overrepresented in the more than 30 million newly insured individuals under the Patient Protection and Affordable Care Act (ACA).[9,10] Yet, within the health professions Hispanics are underrepresented, with only a 7% share of all health care practitioners and technical occupations (e.g., 5% of physicians and surgeons, 5% of pharmacists, 9% of physician assistants, 6% of occupational therapists, and 6% of registered nurses).[11]

To address the problem of minority underrepresentation in the health care workforce, multiple approaches have been developed and implemented, starting with legislation in 1972 for the Special Health Career Opportunity Grant Program[12] and more recently with the ACA,[13] which has provisions to expand the health care workforce and increase its racial/ethnic diversity.[14] Other efforts include creating educational pipelines, such as academic partnerships or enrichment programs to improve access for qualified high school students to medical and allied health programs.[15–18]

Within minority college student populations, there exists a need not only to promote access but also to raise awareness of the larger context within which health outcomes and health care quality are determined.

We wrote this article to describe current and future educational strategies that have been developed at the College of Health Sciences and Human Services at the University of Texas–Pan American (UTPA), an institution serving a large number of Hispanic students. These strategies aim to increase the number of Hispanic health professionals as well as to enrich student educational experiences with research, service, and community involvement, all of which promote an awareness of health disparities and a deeper understanding of the social determinants of health.

The University of Texas–Pan American

The UTPA is a Hispanic-serving institution located along the Texas–

Mexico border. Student enrollment was at 19,302 in fall 2012, 89% of which were Hispanics.[19] In 2011, UTPA ranked second and third nationally in the number of bachelor's and master's degrees awarded to Hispanics, respectively.[20] UTPA serves students primarily from Hidalgo County (hereafter, the County), which supplied 80% of the student body in fall 2012.[19] According to the U.S. Census Bureau's 2012 figures,[21] the County's population is estimated at over 800,000 people, 91% of whom are of Hispanic or Latino origin.* The majority (85%) of the population speak a language other than English, and a third speak English less than very well. The County is among the poorest in Texas and the nation, with its residents' per capita income at half that of Americans nationwide. Lack of health care coverage is a serious access issue; close to half of the population 18 to 64 years of age were uninsured in 2010.[22] The access issue is exacerbated by the shortage of health professionals.[23]

The College of Health Sciences and Human Services at UTPA

The College of Health Sciences and Human Services (hereafter, the College) at UTPA aims to meet the health care needs of its underserved community by providing career options in allied health professions, with the goal of increasing the number of health professionals who establish practices in the County. The College awards approximately 650 degrees annually in nursing, physician assistant studies, occupational therapy, pharmacy, rehabilitation services, clinical laboratory sciences, dietetics, and social work. Degrees are offered at the bachelor's, master's, and doctoral levels.

To achieve its mission of educating and preparing academically and culturally competent professionals and of addressing the local health care needs, the College leadership (the dean, program chairs and coordinators, and center directors) undertook a strategic planning process in 2012 to align the College's educational, research, and community service roles with UTPA's strategic goals and the nation's health care priorities. During that process, and in addition to its regular academic strategic goals, the College adopted an innovative approach centered on furthering the understanding of the social determinants of health[24] as an encompassing framework guiding current and future initiatives in research and community service. Through the integration of a health disparities research center, the College aims (1) to foster a research culture focused on the area's most pressing health care needs and (2) to contextualize the community-based service learning experiences of its students. Within that same framework, the College is collaborating with the College of Arts and Humanities at UTPA to bring to its students a unique, humanities-based approach to promoting linguistic competence.

The South Texas Border Health Disparities Center

In fall 2012, the College integrated UTPA's South Texas Border Health Disparities Center (hereafter, the Center) within its organizational structure. The Center was founded in 2008 by a grant from the Centers for Disease Control and Prevention (CDC). The purpose of the grant was to advance knowledge on health disparities by enhancing the university's institutional capacity to conduct biomedical, behavioral, clinical, and social sciences research addressing issues particular to the largely Hispanic population residing along the Texas–Mexico border. Since its inception, the Center has supported 20 research projects across multiple disciplines. Its affiliated faculty have produced 15 peer-reviewed publications and presented at more than 46 regional and national conferences. The Center has also hosted a lecture series that invites researchers to share their work and insights on health disparities research. Most important, the Center's research activities have involved over 35 undergraduate and graduate students in research projects that have raised their awareness about health disparities, promoted their interest in pursuing careers in the biomedical and health care fields, and cultivated their biotechnical, statistical, presentation, and research skills. Many of the students have been lead authors or coauthors on journal publications and conference presentations.

The Center has also developed collaborations with other institutions of higher education to work on research projects and to provide unique cultural experiences for current and future health care professionals. For example, over the past three years, the Center has collaborated with the Public Health Action Support Team (PHAST) of the University of Michigan School of Public Health, a program that enhances graduate students' education through real-world public health experiences and research. To date, over 20 students have participated in five community-based research projects furthering students' understanding of the social determinants of health within the Texas–Mexico border region and providing opportunities for collaborative interaction with UTPA faculty and students. Similar to findings from other PHAST trips,[25] mapping the activities of these projects reveal their close alignment with the CDC's applied epidemiology competencies.[26] Specifically, projects met competencies within the domains of

- Assessment and analysis (e.g., recognizing public health problems within the border region, organizing data from surveillance and investigations),
- Communication (e.g., preparing written and oral reports), and
- Cultural competency (e.g., establishing relationships with disadvantaged/minority groups, and conducting investigations using languages and approaches tailored to the population).

Analysis of comments in student blogs further reveals a growing awareness of the social determinants of health and an interest in learning more about health disparities. For example,

> If we are to reduce the obesity and diabetes rates … in the U.S., we need to address the social, political, and economic factors that lead to health disparities. More importantly, we must consider the unique attributes of each of these communities that will assist or hinder our efforts to achieve health equity.[27]

Future Center plans include collaborations with two local medical residency programs to foster a broader understanding of cross-cultural care and of how cultural, environmental, and institutional factors contribute to health

*In this article, we usually use the term Hispanic instead of Latino because the former term is more commonly used in a higher education context. The use of "of Hispanic or Latino origin" in this sentence reflects the exact wording used by the Census Bureau in reporting their statistics.

disparities.[28] The planned collaboration is in response to informal discussions on the growing need for cross-cultural training and care, areas that receive little attention in medical curricula.[29,30] The collaboration will encompass two components. The first is a health disparities curriculum module focused on (1) conceptual frameworks to foster understanding of health disparities, (2) cultural and sociodemographic characteristics of the United States–Mexico border region, and (3) regional health and access indicators. The second component will offer medical residents opportunities to participate in Center research projects. Given the effectiveness of cross-cultural skills training in increasing self-perceived preparedness to deliver cross-cultural care,[31] it is expected that this collaboration will result in effective and culturally competent patient–provider communication, a key factor in ensuring patient satisfaction, adherence, and high-quality care.[32]

Other plans include exploring a health disparities minor across different colleges at UTPA. The objective of the minor would be to raise awareness of how an understanding of the social determinants of health can promote culturally competent care across different disciplines. The minor will comprise a four-course sequence: one required course on the social determinants of health and a selection of three electives from a menu of university offerings in courses relevant to the social and cultural experience of minority populations in the United States, such as Mexican American studies, medical Spanish, history, sociology, and communication.

Community-based service learning

The College adopted community service learning to promote civic mindedness and cultural competence and to foster among students a deeper understanding of community health challenges.[33–37] The College pursued these objectives through two student organizations, allowing for broad-based student participation. The first, Valley-Independent, Confident, Activity Network (Valley-ICAN), is an extension of the Rehabilitation Services Concentration for Individuals Who Are Deaf or Hard-of-Hearing (Deaf Rehab). The second is a volunteer student organization called Community Health Education and Promotion (CHEP), discussed below. The College is also planning to formalize students' involvement through a community-based clinic in partnership with the local health department.

Valley-ICAN. Valley-ICAN was established to support the practicum needs and placement of Deaf Rehab students. Its objectives are to promote experiential learning, to stimulate students' interest in research, and to provide networking opportunities with professional organizations in the field of deaf rehabilitation. An integral characteristic of Valley-ICAN is its focus on the needs of both the students and the members of the deaf and hard-of-hearing community. The program pairs students with a service organization or provider. Both collaborate to identify individuals from the target populations and their unmet communication needs. Students then work closely with these individuals to address those needs in American Sign Language. They also interact frequently with faculty members, organization directors, and other students to share experiences, seek advice, and address problems.

Valley-ICAN's success is evident in the growth of the Deaf Rehab concentration, whose expansion was significantly limited by the paucity of practicum placement opportunities. The program grew from 15 students in 2006 to more than 75 students in fall 2012. It has allowed students to gain public policy experience (e.g., presentations to agencies on various disabilities-related legislative acts) and to form advocacy and self-support groups for members of the deaf and hard-of-hearing community. Anecdotal evidence, based on student reports and end-of-semester meetings with the program director, reveals a growing awareness of the challenges facing the deaf community, including limited access to health care, difficulty navigating the Medicaid and Medicare systems, and interpretation challenges, all of which result in delaying or foregoing treatment and which contribute to health disparities. Anecdotal evidence also reveals that starting salaries for allied health professions are no longer as important as serving disadvantaged populations as the primary feature influencing students' job choice.

CHEP. The second community service team established at the College is the CHEP program. CHEP was launched in fall 2012 to support the College's and university's mission of community engagement through providing health education and promotion information to the community in English, Spanish, and American Sign Language. CHEP is based on the premise that student engagement in these activities will raise awareness of the major health challenges facing the community. The CHEP team consists of student and faculty volunteers from among the nine College disciplines. The team assembles at public gatherings (e.g., flea markets, farmers' markets, benefit walks) of large groups of people who typically may not have access to culturally tailored health information. The team distributes health information, answers questions, engages in research activities, and provides referrals, along with blood pressure checks and other health screenings when available. Based on an assessment of the community's most pressing health challenges and the evidence on the success of community-based health education programs in addressing chronic diseases,[38–42] CHEP's outreach agenda was set to focus on distributing health information about diabetes and obesity. During its first year, 53 students participated in CHEP, distributing health information to over 1,500 people at more than 30 community-based events. A research component is included to learn about County residents' perceptions of diabetes and obesity.

The CHEP program began its second year by incorporating lessons learned to offer a more structured approach to team activities. Modifications to the program include more active volunteer recruitment, more formal orientation and training, an evaluation component, and a more involved role for the Health Disparities Center to contextualize program goals within the social-determinants-of-health framework.

A community-based clinic. The College is planning a community-based clinic in collaboration with the local health department as an additional component in support of service learning. The objectives of the partnership are to (1) provide experiential learning opportunities for students, (2)

promote the value of interprofessional collaborative teams in improving health care quality, and (3) provide health care services to a medically underserved population. Students will participate in a service learning experience under the supervision of a qualified team of health professionals from the students' respective disciplines. The clinic will emphasize interprofessional collaboration, an approach that will be integrated into the curricula of all nine disciplines within the College and that will capitalize on the experience of successful medical-student-run clinics in underserved communities. Such clinics have demonstrated potential to attract medical students to primary care careers,[43] to address the crisis facing the U.S. health care system,[44] to improve cultural competence skills,[37] and to promote interprofessional collaboration.[45] These clinics have further demonstrated their effectiveness at enhancing the recruitment of minority students into medical school.[46]

Linguistic and cultural competence

Limited English proficiency contributes significantly to disparities in health care quality, health care services utilization, and health outcomes among racial and ethnic minorities.[3,4,47–50] Thus, a consistent recommendation to improve the quality of care for individuals whose primary language is other than English is to use professional interpreters in the clinical setting.[51,52] In multilingual environments, the practice of using ad hoc interpreters continues[53] despite the growing evidence that professional and culturally competent interpretive services improve the quality of health care for limited-English-proficiency patients.[54] In many cases, bilingual allied health professionals are routinely called on to provide language access services. Rarely, however, do allied health degree programs provide training for their students to successfully accomplish this important function. At UTPA, the Medical Spanish for Heritage Learners (MSHL) program is designed to meet this growing need. The 19-credit program consists of a four-course sequence in medical Spanish and public health and a 45-hour internship at a community health center. Student enrollment has steadily increased since the program's inception in 2008 and is currently at over 400 students. The program draws students primarily from the nursing, premedicine, and predental programs. More recently, students in dietetics, rehabilitation services, psychology, and prepharmacy have entered the program.

The program's innovation stems from its highly contextualized approach to learning medical terminology in Spanish. This approach consists of developing medical discourses across languages, with the intent of developing a high degree of flexibility in the students' sociolinguistic repertoire. For example, when teaching a unit on tuberculosis, the illness is first contextualized within the human respiratory system through readings of scientific publications and discussions of the anatomical and physiological systems that the illness affects. Next, the illness is contextualized within its cultural dimensions. In the example of tuberculosis, a vignette from Tomás Rivera's[55] classic novel … *y no se lo tragó la tierra* allows students to relate the scientific discourses of illness to popular health discourses and beliefs. In doing so, students recognize the cultural meanings assigned to illnesses in a variety of contexts that uniquely affect Hispanics in the United States. Finally, the illness is contextualized within its epidemiological dimensions. In this particular example, students read from the Pan American Health Organization's manual *Salud en las Américas*,[56] which discusses the epidemiology of tuberculosis along the United States–Mexico border.[57]

MSHL also strives to develop writing and translation skills within the context of proven strategies and theories of health promotion. Students explore topics such as health literacy and its relationship to language in conjunction with theories of health behavior change. These topics then serve as a framework for the evaluation of written materials in Spanish. Once students have mastered these concepts and are able to actively critique existing health promotion materials written in Spanish, they engage in a class project to translate health promotion documents for national and state-level organizations. To date, students have contributed to translation projects for the Epilepsy Foundation, the Juvenile Diabetes Research Foundation, and the American Cancer Society.

The program culminates with a 45-hour internship at a community-based health care facility. The internship allows students to engage directly with Spanish-speaking communities and to apply language skills and cultural knowledge to real-life situations. The internship experience also results in a more nuanced understanding of the ways in which language and power interact in the provision of health care services.[58]

Evaluation of the MSHL program in 2011 demonstrated significant gains on a number of measures. A pre–post survey instrument was used to assess knowledge of medical terminology, entrance and exit interviews were used to evaluate the use of medical terminology, and mock interpreting scenarios were used to evaluate interpreting and translation skills (translation errors, false starts, code switching, Spanish errors). Quantitative and qualitative analyses revealed enhanced mastery of medical terminology and improved medical interpreting and translation skills.

Lessons Learned

Although the adoption of a new educational vision can be highly promising, it is also challenging in a number of ways. The College's experience with the implementation of individual components reveals that these challenges center on fitting additional curricular requirements into existing degree plans, stakeholders' buy-in, administrative coordination with outside partners, and a systematic approach to evaluation. Based on the experience of the MSHL program, the most daunting challenge was to fit a 19-credit-hour curriculum into the already-packed health professions degree programs. This challenge was creatively resolved by the College's academic leadership, who devised an optimal distribution of the program's didactic and clinical requirements. Specifically, department chairs agreed to revise degree plans, allowing students to take courses in medical Spanish as part of the required prehealth courses and to complete the internship portion in conjunction with clinical and practicum requirements. These two administrative modifications resulted in an optimal distribution of program requirements throughout a student's college career. The Valley-ICAN development and implementation experience emphasized the importance

of open communication channels with key stakeholders (faculty, partnering agencies) early in the planning phase to ensure the support of all parties involved. The experience with the PHAST program revealed that collaborations with external entities are facilitated through formal agreements that coordinate legal and administrative roles (e.g., institutional review board process, liability issues).

Finally, the lack of a systematic approach to evaluation reflected the scarcity of dedicated resources and the absence of a theoretical framework guiding the measurement of processes and outcomes. This resulted in significant variation in the quality of evaluation activities across programs. The new strategic vision, focused on the framework of the social determinants of health along with the integration of the Center into the College's organizational structure, can help overcome these limitations. A systematic and consistent evaluation effort will focus on the effectiveness of the different College programs at preparing culturally competent health care professionals. Quantitative analysis will use a pre–post study design and an online survey with four main outcome measures: (1) cultural competence, (2) knowledge of health disparities, (3) attitudes towards research, and (4) intent to practice in disadvantaged communities. The first two outcomes will be measured using a modified version of the Clinical Cultural Competency Questionnaire (CCCQ).[59,60] The three-factor Attitudes Towards Research Scale[61,62] will be used for the third outcome measure, and the fourth outcome will be assessed by asking students about their future practice intentions. The survey instrument will include sociodemographic and educational variables and will allow for tailored questions to reflect each program's unique characteristics and objectives. Multivariate regression analyses will be used to explore the associations between sociodemographic and educational variables and the outcomes of interest. Also, data collected at baseline and at the end of program participation will be compared using paired-sample *t* tests. Qualitative evaluation activities will include student focus groups to gain an in-depth understanding of students' experiences and to solicit recommendations for program improvement.

A Model for Future Academic Health Initiatives

In this article, we have described how the College has initiated a systematic and comprehensive approach to prepare culturally competent health professionals. This effort is in response to the growing importance of the role that UTPA and the College play in addressing health challenges within their community. The approach centers on creating multiple community-based research and service collaborative venues through which students gain an understanding of the unique United States–Mexico border's sociodemographic context and of the causal pathways through which that context shapes health outcomes and contributes to health disparities.

Although the different components of the College's approach are at different developmental stages and will benefit from more formal evaluations, the College's overall vision has several strengths that promise to serve as a model for future academic health initiatives. First, the College's comprehensive vision overcomes many of the limitations characteristic of cultural competence curricula in medical education.[63] The approach moves away from a narrow conceptual framework that in many cases limits the scope of cultural competence to a matching of patient–provider ethnicity and/or to equating cultural competence to linguistic competence. It also overcomes the narrow definition of diversity, generally limited to an enumeration of the number of students from minority populations, to embrace an enriched educational experience that enhances multidimensional skills in research, advocacy, community engagement, service, and linguistics.[64]

Second, most cultural competence intervention and training activities are limited in scope and are carried out as stand-alone, short-term activities within educational and training curricula.[65,66] The College, on the other hand, is embracing cultural competence as a multidimensional, long-term strategic goal.

Finally, the recent emphasis of the ACA on comprehensive care models such as the patient-centered medical home[67] necessitate a corresponding health care workforce with a well-grounded understanding of the social determinants of health and with cultural competence skills. The College's initiatives support many of the core features of the patient-centered medical home[68,69] such as the whole-person orientation and the coordinated care model, for which the cultivation of cultural and linguistic skills is essential in the delivery of care and in engaging patients and their families.

As the College is moving forward with the development, implementation, and evaluation of these strategies, it is redefining its role in health sciences education and is identifying the most effective components and the best practices to prepare a health care workforce that can meet the needs of a diverse population. Its approach to promote cultural competence within a framework of social determinants of health can serve as a model that integrates teaching, research, and service. Although not a panacea to improving the health of ethnic and racial minorities, a diverse and culturally competent health workforce is one important piece in the efforts toward that goal.

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