

TITLE PAGE

Title of Project:

San Antonio Health Services Research Program (SAHSRP)

Principal Investigator and Team Members:

Dr. Raymond Garza

Dr. Robert Ferrer & Dr. Dorothy Flannagan	Project 1
Dr. Raymond Garza & Dr. Stella Lopez	Project 2
Dr. Frank Moore & Dr. Donde Plowman	Project 3
Dr. David Espino & Dr. Art Hernandez	Project 4

Organization:

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STRUCTURAL ABSTRACT

Purpose:

The San Antonio Health Services Research Program advanced UTSA's health services research program, increased faculty and student interest in health services research, and fostered collaboration with other health services researchers in San Antonio and South Texas. The project had four general "core" goals: (1) enhance the capability of faculty to undertake health services research; (2) Increase the number of UTSA faculty – especially members of ethnic minority groups – conducting health services research; (3) Increase the number of students – especially members of ethnic minority groups – involved in health services research; and (4) strengthen ties to health services researchers in San Antonio and South Texas.

Scope:

The project included an infrastructure component, which consisted of a series of faculty and student programs designed to build research capacity, and four individual research projects addressing important health and health services-related topics as summarized in this report.

Methods:

The project's capacity building goals were pursued through a summer research awards program for faculty, research workshops and seminars, and various collaborative activities with the UT Health Sciences Center (San Antonio) and the UT School of Public Health (Houston). The four independent research projects supported original research and provided research experience for graduate students.

Results:

The project had a large and lasting impact on the capacity of faculty and graduate students to conduct health services research in San Antonio. The completed research projects yielded important findings that will benefit the San Antonio community.

Key Words:

Research Infrastructure, Health Services Research, Faculty Development, Student Mentorship, San Antonio Community.

PURPOSE

Objectives of the Study:

1. Enhance the capability of faculty to undertake health services research.
2. Increase the number of UTSA faculty – especially members of ethnic minority groups – conducting health services research.
3. Increase the number of students – especially members of ethnic minority groups – involved in health services research.
4. Strengthen ties to health services researchers in San Antonio and South Texas.

SCOPE

The University of Texas at San Antonio (UTSA) is a Minority-Serving Institution whose students reflect the character of South Texas and the changing demographics of the country. Although the University is slightly over 30 years old, it is poised to become the next premier research institution in Texas. The faculty and administration remain committed to this vision and have identified health research as a critical area for further development. The San Antonio Health Services Research Program (SAHSARP) was implemented at an opportune time. UTSA was strained to provide the type of infrastructure support that is necessary to realize its potential in the area of health research. The support of SAHSRP enabled UTSA to advance its health-services research program and address the health issues of a large, underserved and understudied sector of South Texas.

Designed to build institutional capacity in the area of health-services research, SAHSRP addressed several key areas. First, investigators at UTSA needed support and guidance to modify their research programs so they could more specifically focus the priorities identified by the Agency for Healthcare Research and Quality and the “Healthy People 2010” project. This major change of course involved required a greater emphasis on collaborations that capitalize on the experience of other health-services investigators and help UTSA faculty gain access to community and clinical samples. To facilitate this type of paradigm change, UTSA investigators needed the assistance of experienced health-services researchers and a supportive and stronger research infrastructure at UTSA.

To enhance its capacity for health service research, UTSA hired several more faculty with expertise in this area. Central to this initiative was a strategic hiring plan developed in conjunction with experts in the field of health-services research. The success and impact of this hiring initiative is readily apparent by the addition of more than a dozen junior and senior faculty across campus as well as the development and implementation of several more health-related graduate programs. In addition, several existing graduate programs also added or intensified their focus on health-related research. Joint-faculty appointments with other institutions involved in health-services

research further bolstered these graduate programs and strengthened the University's ability to conduct health-services research.

Student involvement was also an important element to the success of health-services research at UTSA. Moreover, because the majority of its students are from underrepresented groups, UTSA was ideally suited to train future generations of health-services researchers who can fill the current void of ethnic minority investigators. Thus, increasing the training opportunities for students in health-services research is a high priority for UTSA.

METHODS

Study Design:

The project's objectives were pursued through a summer research awards program for faculty, research workshops and seminars, and various collaborative activities with the UT Health Sciences Center (San Antonio) and the UT School of Public Health (Houston). The four independent research projects were designed as a well-coordinated effort to address pressing health and health services concerns in the San Antonio community by supporting original faculty research and providing research experience for graduate students.

RESULTS

Findings - Infrastructure Component:

The San Antonio Health Services Research Program provided a great deal of impetus on health services research capacity building in San Antonio. In addition to the substantial impact of the infrastructure activities, the outcomes of the completed individual research projects provide valuable information on health and health services issues affecting the San Antonio community in several ways:

1. Some of the research topics directly related to health issues of Hispanics, who make up the majority of the San Antonio population.
 - a. For example, diabetes is a major cause of poor health among Hispanics. One of the findings from the study on diabetes is that the time the physician spends with patients and the number and types of words he/she uses, affects the degree to which patients will follow the plan for managing the disease which they develop with the doctor. Thus, the care of diabetes patients may well be improved through communicating the findings of this study to the health care community.
 - b. The project on promoting health attitudes among pre-adolescents was aimed at reducing obesity and the potential for developing diabetes. The results of this intervention have the potential to reduce health risks among Hispanic young people in San Antonio. And the nation
2. Given the demographic trends in San Antonio, the largest users of healthcare services are of Mexican/Hispanic origin. One of the studies conducted was designed to collect empirical data on how healthcare institutions are organized. This information can help

improve the quality of healthcare that is provided as well as financial viability of each institution. The relationship between the outcomes of this project and the Hispanic community are indirect, via improved hospital processes, but Hispanics as well as all patients stand to benefit from institutions that are better organized to delivery high quality health care.

Graduate Student Impact. Involvement of graduate students in the various research projects is had a profound impact on their careers. In fact, as a direct result of the professional development and research activities supported by the program, most of our Graduate Research Assistants (GRA) chose a healthcare services focus for their thesis/dissertation research projects.

Findings – Independent Research Projects:

Project 1: Direct Observation of Competing Demands for Diabetes Care:

Understanding Ethnic Disparities in Care for Hispanics

Project PI's: Robert Ferrer (UTHSCSA), Dorothy Flannagan (UTSA), Michael Parchman (UTHSCSA) Research Assistants: Mike Matamoros (UTSA) and Raquel Romero (UTHSCSA):

Two studies have been completed and a third is in progress. Below are summaries of key findings, potential clinical impact, presentations and manuscripts, for each study.

Study 1: Communication competence, Self-Care Behaviors and Glucose Control in Patients with Type 2 Diabetes (completed)

- Hypothesis: Patients whose physician demonstrates higher levels of communication competence will report higher levels of self care and have better glucose control.
- Brief summary of methods: Detailed analysis of audio-recordings of 155 patient encounters with 45 physicians from 20 primary care clinics. Physician communication competence was measured with the Common Ground Rating form, a validated measurement tool that measures seven-subscales of communication competence. Outcomes included stage-of-change for self-care behaviors and glycosylated hemoglobin values. Demographics and care process indicators were also measured. Outcomes were examined separately for Hispanic and non-Hispanic patients.
- Results: Hispanic and non-Hispanic patients were similar in terms of age, sex, income, number of patient visits in past year, and the level of physician communication competence displayed during the visit. Hispanics had less formal education, took fewer medications, and had higher levels of glycosylated hemoglobin. Communication competence was associated with diet self-care activities in the hypothesized direction. In general, better physician communication competence was associated with better glucose control (HbA1c 7.15 vs. 7.88; p=.01). However the relationship between communication competence and HbA1c was significant only for Hispanic patients. This was true

- after controlling for demographics and self-care activities.
- Limitations: Communication competence, self-care, and glucose control were assessed cross-sectionally so that causal relationships remain unclear. It is also possible that physicians may be able to score higher on rapport building and active listening with patients who adhere more closely to their regimens because they spend less time reinforcing instructions.
- Conclusions: Primary care physicians' communication competence is associated with glucose control in patients with type 2 diabetes. Communication competence may be more important for less educated patients because of their lower health literacy.

Presentation:

Matamoros, M., Flannagan, D., Parchman, M. L., & Ferrer, R. (May, 2007). *Elements of communicative competence demonstrated by physicians related to topics discussed during medical consultations and patient characteristics*. Presented at the annual meeting of the Midwestern Psychological Association, Chicago, IL.

Publication:

Parchman, M. L., Flannagan, D., Ferrer, R., Matamoros, M. Physician's communication competence, patient self-care behaviors, and glucose control. *Patient Education & Counseling* 2009; 77:55-59.

Study 2: Patient-physician discussions about non-adherence to diabetes treatment regimes (completed).

- Objective: The literature describing how patients and physicians discuss non-adherence to treatment has been based on retrospective patient reports. Our objective was to study these conversations with real-time audio-recordings.
- Brief summary of methods: Detailed analysis of audio-recordings of 155 patient encounters with 45 physicians from 20 primary care clinics. Patients' accounts of their non-adherence to treatment on the audiotapes were coded into 1 of 4 categories: concession (admitting), excuse (admitting but denying responsibility), justification (admitting and explaining that there were legitimate reasons), or denial (that non-adherence occurred). In turn, physicians' responses were coded as positive, neutral, or negative regard. Coding from direct observation was compared with patients' exit interview data in which they reported how they discussed non-adherence and how their physician responded.
- Results: Patients used primarily justifications (44.3%) and excuses (44.3%) when reporting non-adherence; concessions (8.4%) and denials (2%) were infrequently used. In response, physicians tended to provide neutral (84%) rather than positive (6%) or negative (9%) responses. The distributions of patient behavior and physician response differed significantly in direct observation and exit interviews.
- Limitations: Interactions from this set of primary care clinics in and around San Antonio may not be broadly representative.

- **Conclusions:** Although patients report that they most commonly use concessions when discussing non-adherence with their physicians, our direct observation of these discussions found justifications to be the most common strategy and concessions to be uncommon. Also, direct observation finds positive physician responses to non-adherence to be less common than patients report retrospectively. Accurately understanding these communication dynamics will help train physicians in effective communication strategies for managing diabetes.

Presentation:

Villarreal, R., Flannagan, D., Parchman, M. L., & Ferrer, R. (May, 2008). *Patient noncompliance accounts, physician compliance-gaining strategies, and characteristics of patients and their care*. Presented at the annual meeting of the American Psychological Society, Chicago, IL.

Publication:

Flannagan, D., Ferrer, R., & Parchman, M. L. (manuscript in review). *Patient-physician discussions about nonadherence to treatment regimes*.

Summary and potential clinical implications of completed studies:

1. Physician communication competence is associated with better glucose control in patients with diabetes. This finding replicates previous literature, but adds new data that communication competence may be particularly important in a population of less-educated minority patients. Greater emphasis on relevant communication skills may therefore be a mechanism to reduce diabetes disparities. The Common Ground Rating instrument may be useful in assessing clinicians in training and helping them improve their communication skills.
2. When discussing non-adherence to self-care, patients more often deny responsibility than they recall after the fact and physicians less often respond in a supportive manner. Given the importance of motivating and supporting patients' effective self-care, this information will be useful in training physicians to recognize and manage the different categories of non-adherence accounts.

Study 3: Social Desirability and Stage-of-Change Reporting among Hispanic Patients with Diabetes (in progress).

Background: Our preliminary work on the "Direct Observation of Competing Demands for Diabetes Care: Understanding Ethnic Disparities in Care for Hispanics" project has brought to light a puzzling set of observations. In our sample of 169 patients with type 2 diabetes mellitus, the glycosylated hemoglobin values of Hispanic patients average about 0.5 % higher than non-Hispanic white patients (7.79 vs. 7.32%; difference 0.47%; $p=0.11$). However, as displayed in the table below, Hispanic patients more often report being at advanced stages of change for diet, exercise, and medication adherence. This paradoxical finding persists after adjustment for age, sex, quality of diabetes care

received, and number of chronic medications. These findings motivate us to do some methodological work to ensure we are clearly understanding and measuring constructs like stage of change in our hypothesized pathway.

Variable	Hispanic	Non-Hispanic white
Glycosylated hemoglobin - mean	7.79	7.32
% maintenance stage - Diet	43.8	37.3
% maintenance stage – Exercise	51.3	38.8
% maintenance stage - Medications	86.2	75.0

Hypothesis: We hypothesize that the paradoxical relationship between self-reported stage of change and glycemic control might be explained by Hispanics’ greater propensity to report stage of change in a more socially desirable manner.

Literature review: We could find no relevant data describing differences by race or ethnicity in social desirability bias for stage-of-change questions on health behaviors. Limited data suggest that social desirability bias affects dietary recall, and that the extent of bias may differ by sex, educational level, and measurement instrument used. {Hebert, 2008 #8} A single study examining the effect of ethnicity on the relationship between social desirability trait and food frequency questionnaire responses did not find an effect of ethnicity or race, {Hebert, 2001 #9} though an effect was observed among 8 to 10 year- old African American girls reporting physical activity. {Klesges, 2004 #12}

Research methods: Our plan is to gather additional primary data to assess the relationship between ethnicity and social desirability bias in reporting stage of change for health behaviors among diabetic patients. Dr. Parchman is currently collecting data for a NIDDK-funded study of quality improvement for diabetes care in small primary care practices. With a small amount of additional data collection, the questions relevant to the proposed study can be addressed. Because this is a preliminary study, we will limit the focus to the relationship among social desirability, reported diet stage-of-change, and self-reported diet.

Participants: Hispanic and non-Hispanic white patients with type 2 diabetes mellitus receiving care in participating primary care practices (African American patients make up only about 7% of the San Antonio area population and are therefore present in insufficient numbers for separate subgroup analysis).

Measures: The ongoing study is collecting extensive data on demographics, quality of care, processes of diabetes care, and physiological endpoints such as glycosylated hemoglobin, serum lipids, and blood pressure. The additional measures specific to this study are a measure of social desirability, the short-form (10-item) Marlowe-Crowne Social Desirability Scale, {Reynolds, 1982 #11} and an interviewer-administered dietary

measure adapted for Hispanic populations from a food frequency questionnaire used in the Study of Women's Health Across the Nation (SWAN).{Block, 2006 #14}

Analytic strategy: The relationship between patient stage of change for diet and food frequencies will be assessed separately for Hispanic and non-Hispanic white patients. Our hypothesis is that, consistent with our preliminary findings, Hispanic patients with diabetes will report a more advanced stage of change for diet, while food frequency questionnaires will be similar between Hispanics and non-Hispanics for carbohydrate, sugar, and fat intake. Social desirability scores will correlate with the extent of divergence between stage of change and food frequency responses. The relationship of these variables to covariates such as age, sex, education, and body mass index will also be assessed for potential confounding or effect modification.

Challenges: Social desirability bias may affect reporting on the food frequency questionnaire as well as the dietary stage of change item. As cited above, there is limited evidence that social desirability has only a small effect on differences in diet reporting between ethnic groups, but this is not a robust literature. Our ability to carry out detailed assessments of this potential bias is limited in this pilot study.

Project 2: Enhancing Health-Conscious Attitudes and Behaviors Among Hispanic Youth

Project PI's: Raymond T. Garza (UTSA), Stella Garcia-Lopez (UTSA)
Research Assistants: Marissa Garcia, John Moring, Ana Gonzalez, Laura Flores (Spring 2007 only), Cortnee Welch, and Sarah Gomillion (all UTSA)

Background:

A review of the literature indicated that there are increasing health-related problems among the Hispanic population, in particular among the youth. The 10 to 12 year old age span is more likely the time period for the onset of smoking related behaviors and less positive attitudes regarding health in general. Problems with nutrition are viewed as a serious concern in all age ranges but specifically, among the youth and the youth in minority populations. Attitudes regarding alcohol emerge at this point too but are more manifested in the children's behaviors once they are at adolescence.

In the spring semester 2006, focus groups consisting of teachers and administrators from the ISD were interviewed to assess their perceptions of educational needs for 6th grade students in the areas of nutrition, physical activity, smoking, and alcohol (i.e., the dependent variables). The recorded interviews were then written into transcripts. The general result was that we needed to focus on 3 areas of health-related attitudes and behaviors in Hispanic 6th graders. They were (1) smoking (cigarettes and tobacco), (2) alcohol, and (3) nutrition.

The Approach:

The method for all four (4) studies consisted of a pretest week wherein children filled out relevant questionnaires assessing attitudes and behaviors. A second week followed wherein the children received either a collectivist curriculum, an individualist curriculum, or a control/standard curriculum for the respective topic (i.e., smoking, alcohol, or nutrition). The third week consisted of the children creating posters illustrating what they may have learned from the prior week. Two months later was the posttest phase when children filled out again a battery of questionnaires and were interviewed with 5 short questions inquiring what they remembered or learned from the curriculum.

The important manipulation in the study, i.e., one of the independent variables, was the type of intervention curriculum the children received. All 3 curricula contained knowledge-based information about smoking (i.e., the SAISD standard curriculum). However, the collectivist condition focused on messages on how one's behaviors and attitudes affected the collective unit (e.g., family and friends), and how one's group influenced one's attitudes and behaviors (i.e., an interdependent approach). The individualist condition, on the other hand, focused on messages about how holding certain attitudes or behaving in certain ways (e.g., smoking) would impede in one's efforts to become the best that one can be (e.g., can't be a good runner). The control/standard condition did not contain any individualist or collectivist related statements about smoking.

In all of the four studies, there were 3 sets of data. The first set of data are questionnaire data from the parents and children. Data from the children were analyzed first, then the parents' questionnaire data were analyzed subsequently. The second data set comes from ratings of the children's poster/drawings. The last set of data come from the transcripts from the interview of the children. Below is an update of progress in each project.

Accomplishments:

Smoking Study 1: In the fall semester 2006, we contacted relevant personnel at the SAISD in order to access potential participants. We proceeded with the research review required at the SAISD and the Parent Review Committee and we were given permission to approach ISD academies' 6th grader classes for our study. Once we received the principals', the teachers or coaches', and the parents' consent (and the children's themselves) to conduct our study, we implemented our research method. We also recruited parents to fill out questionnaires related to the health area. The sample size for children was 50 while for parents, it was 29. The sample sizes are low because of several factors: the school structure at the ISD prevented us from recruiting from more schools, some parents said no to the participation, and principals declined participation.

Analyses. The questionnaire data from both the children and the parents have been analyzed. The posters have been rated on several dimensions. The raters' data are

currently being analyzed. The children's posttest interview responses were transcribed. A coding scheme was developed, and the transcripts were rated by independent judges. Nonparametric statistics were conducted on the data.

Alcohol Study: Using the same methodology, we collected data with regards to attitudes and behaviors related to alcohol. This study was performed in the spring semester of 2007.

Analyses. The questionnaire data from both the children and the parents have been analyzed. Similarly, the interview data were coded and rated. Analysis of these interview ratings have been conducted. The ratings of the children's posters have been done. Currently, we are analyzing the raters' data on the qualitative data from the posters.

Nutrition Study: In the fall semester of 2007, after receiving approval from all relevant sources, we conducted the same methodology on 6th graders with regards to nutritional attitudes and behaviors. The sample size for children was 146 and for parents, it was 85.

Analyses. After data collection in the nutrition study, we have coded the questionnaire data and have conducted pertinent analyses on the children's and parents' data. We have also performed the relevant coding and analyses on the interview data. The posters have been rated. Currently, these rater's judgments of the posters are being analyzed.

Smoking Study 2: A replication of the first smoking study was conducted. Not only were dependent measures cleaned up, but we also collected data from more of the academies in SAISD. The sample size for children in the second study was 108, and it was 40 for the parents.

For the second smoking study, the SAISD and its parent committee approved the study on the condition that two (important) measures be taken out: the Bidimensional Acculturation Scale and two questions asking the children to indicate their racial and ethnic composition. We did as they had requested even though these measures would have contributed to some replication results and potentially new and revealing findings. In addition, the sample size for the parents was low because the UTSA IRB required us to lower the monetary compensation to the parents from \$40.00 to \$20.00 each. Feedback from the teachers and coaches in some of the academies reflected concern from the parents that participation in the study was not worth the compensation.

General results: The results from the questionnaire data in smoking study 1, study 2, alcohol, and the nutrition study indicated that attitudes and behaviors towards and about smoking and tobacco use were influenced by the collectivist-oriented curriculum than the individualist or control/standard conditions. For example, in the smoking

study 1, students who were highly collectivist found it very hard to say no to smoking at the pretest phase but reported that it was easier to do so at the posttest phase. In addition, they also reported being able to talk to their parents about smoking at the posttest phase as opposed to the pretest phase. Lastly, students whose parents were average in collectivist orientation did ask a family member to quit smoking at posttest than at the pretest phase.

The results originating from the children's interview data also converged with the general result that the collectivist-oriented curriculum was favorably received and was remembered more than the other two conditions. Results from the poster ratings are still pending.

Manuscripts in progress:

The following is a current list of manuscripts we are writing up for peer-review publication.

1. Lopez, S., Garza, R., Gonzalez-Blanks, A., & Moring, J. Collectivism and Individualism in attitudes about smoking among Hispanic 6th graders.
2. Garza, R., Lopez, S., Moring, J., & Gonzalez-Blanks, A. Acculturation and Collectivism in attitudes and behavior about smoking in Hispanic parents.
3. Garza, R., Lopez, S., Gonzalez-Blanks, A., & Moring, J. Enhancing healthy attitudes and behaviors about nutrition in Hispanic youth.
4. Lopez, S., Garza, R., Moring, J., & Gonzalez-Blanks, A. The influence of Hispanic parents' attitudes and behaviors toward eating in Hispanic children.
5. Gonzalez-Blanks, A., Lopez, S., & Garza, R. Study 2: Examining the continuing influence of a collectivist-oriented intervention program in attitudes about smoking among Hispanic 6th graders.

Project Presentations:

The following is a list of professional presentations we have made in the past year. We are also planning to present the results to the SAISD in the coming future.

1. Garza, R.T., Lopez, S.G., & Gonzalez-Blanks, A. G. *Preventing Smoking among Hispanic Youth: The Application of Latino Cultural Dimensions in Promoting Healthy Attitudes and Behavior*. Presented at the 15th Annual Latino Behavioral Health Institute Conference, Advancing Latino Behavioral Health: from Margin to Mainstream, Universal City, California, September 23, 2009.
2. Lopez, S. G., Garza, R. T., Moring, J., & Gonzalez, Ana G. *The Use of Collectivism and Individualism in Attitudes Against Smoking for Hispanic Youth*. Presented at the Southwestern Psychological Association Convention, San Antonio, Texas, April 3, 2009.
3. Gonzalez-Blanks, A., Garza, R. T., & Lopez, S. G. *Collectivism and Individualism in Attitudes about Smoking in Hispanic Youth*. Presented at the COLFA Research Competition, University of Texas at San Antonio, March 20, 2009.

4. Lopez, S. G. & Garza, R. T. *Smoking Among Hispanic Youth: Implementing a Collectivist Orientation for Healthy Attitudes and Behavior*. Presented at the Third National Leadership Summit on Eliminating Racial and Ethnic Disparities in Health, National Harbor, MD. February 25-27, 2009.

Implications:

This research program demonstrates the significant benefits of utilizing a collectivist orientation in prevention and intervention programs in nutrition, smoking, and alcohol among Hispanic youth, it can be easily implemented in schools, is cheaper, and will be relevant to its targeted audience who are generally collectivist in orientation. An important future task for us is to examine the long-term effects of a collectivist-oriented prevention and intervention program. We have conducted posttest measurements after two months of implementing the curricula. It would also be ideal to conduct posttest measurements at a longer time frame such as 6-months later and 1-year later. In addition, we can also test the effectiveness of the individualist curriculum on students whose cultural orientation are individualist in nature. Results from this potential follow up study could provide further evidence that prevention and intervention programs have to be culturally-oriented to influence the youth in developing healthy attitudes and behaviors.

Project 3: A Study of Organizational Complexity and Organizational Decision Making in Health Facilities and Services in Relations to Quality Improvement, Patient Safety and Human Resource Management practices

Project PI's: Donde Plowman , (UTSA), Dennis Duchon, (UTSA), Frank Moore, (UTSPH) Research Assistants: Deandra Villarreal Travis, Edwin Videla, Ricardo Tapicha (all UTSA)

The University of Texas School of Public Health (UT SPH) San Antonio Regional Campus (SARC) SAHSRP project under the direction of Frank. I. Moore, PhD is pleased to report on the progress towards the overarching goal of training minority researchers in quality improvement and health disparities research. The UT SPH SARC continues to enroll a student population that is more than half minority students. During the current grant cycle (2007-2009), 28% of the student population was Hispanic, 8.5% was African American, and 15% was Asian American.

TABLE A Racial and Ethnic Distribution of Students at UT SARC Campus, 2007-2009							
Year	Asian American	African American	Caucasian	Foreign	Hispanic	Unknown	Total
2007	14(9%)	16(10%)	68(41%)	9(5%)	53(33%)	4(2%)	164
2008	35(14%)	16(7%)	94(41%)	9(4%)	69(30%)	4(2%)	227
2009	55(19%)	25(9%)	125(44%)	10(3%)	70(24%)	1(0%)	286
Total	104(15%)	57(8.5%)	287(42%)	28(4%)	192(28%)	9(1%)	677

The UT SPH SARC is uniquely located to draw on students from the surrounding San Antonio community and 2 additional existing academic communities located in the immediate vicinity (University of Texas San Antonio – UTSA; University of Texas Health Science Center at San Antonio – UTHSCSA).

Ten student researchers completed training in health disparities (included below). Research included new data collected from qualitative and quantitative study techniques, analysis of existing national data sets, reviews of existing health disparities research, and evaluations of health promotion programming.

TABLE B Health Disparities Research by Students at UT School of Public Health SARC '07 – '09		
Researcher	Year	Title of Project
Attenberry, Heather N.	2009	The Coordinated Approach to Child Health in Underserved Populations (CATCH UP) Curriculum: A Quantitative Evaluation of an Innovative Preschool Obesity Prevention Program.
Davila, Marivel, MPH	2007	Prevalence of Depressive Symptoms Among Hispanic Women Attending a Public Health Clinic.
Flores, Eduardo, MPH	2008	Health Education Intervention to Reduce Risk of Infectious Disease Transmission Among Community Health Workers and Their Clients.
Garcia-Upright, Diana J. MPH	2007	Disease Using the National Health and Nutritional Examination Survey (NHANES).
Pollard, Joseph, MPH	2009	Comparing Experience of Diabetes Care With Chronic Illness Care in the Primary Care Clinic Using the Patient Assessment of Chronic Illness Care (PACIC).
Pope, Stephan A., MPH	2007	Years of Potential Life Lost Among Hispanics and Non-Hispanics in Bexar County
Saavedra-Embese, Monica, MPH	2008	Barriers to Breast and Cervical Cancer Screening Among Migrant and Seasonal Farm worker Women in the Lower Rio Grande Valley, Texas.
Soleman, Donna DDS, MPH	2009	Texas Dentists' Attitudes and Activity Level since the Change in Medicaid Reimbursement Rates.
Sintes-Yallen, Amanda, MPH	2008	Validity and Reliability of a Measure of Latina Mother's Nutritional Self Efficacy.
Trevino, Julian J. MPH	2008	The Socioeconomic Status of Families Hyperglycemic versus Non-Hyperglycemic

The School of Public Health has expanded the capacity of the local public health workforce to engage in quality improvement research specifically sensitive to minority populations. Additionally, the training of exceptional minority researchers continues to contribute to the diversity of the South Central Texas public health workforce.

Abstracts from Student Researchers

1. Attenberry, Heather N. MPH. (2009) The Coordinated Approach to Child Health in Underserved Populations (CATCH UP) Curriculum: A Quantitative Evaluation of an Innovative Preschool Obesity Prevention Program. The University of Texas School of Public Health, 2009
2. Davila, Marivel, MPH*** (2007) Prevalence of Depressive Symptoms Among Hispanic Women Attending a Public Health Clinic. The University of Texas Health Science Center at Houston School of Public Health
3. Flores, Eduardo, MPH.*** (2008) Health Education Intervention to Reduce Risk of Infectious Disease Transmission Among Community Health Workers and Their Clients. The University of Texas – Houston Health Science Center School of Public Health
4. Garcia-Upright, Diana J. MPH.*** (2007) Disease Using the National Health and Nutritional Examination Survey(NHANES). The University of Texas Health Science Center at Houston School of Public Health
5. Hughes, Duncan G. MPH*** (2008) The Comal County Needs Assessment Youth Survey. The University of Texas- Houston Health Science Center School of Public Health.
6. Noelson, Rivo MD, MPH*** (2008) Youth Population’s Health Issues in Comal County. The University of Texas – Houston Health Science Center School of Public Health
7. Pollard, Joseph, MPH***. (2009)Comparing Experience of Diabetes Care With Chronic Illness Care in the Primary Care Clinic Using the Patient Assessment of Chronic Illness Care (PACIC). The University of Texas School of Public Health
8. Pope, Stephan A., MPH*** (2007) Years of Potential Life Lost Among Hispanics and Non-Hispanics in Bexar County. The University of Texas Health Science Center at Houston School of Public Health
9. Quackenbush, Jennifer S.*** (2009) A Qualitative Analysis of the Leadership Styles and the Selection of Quality Improvement in Primary Care Practice. The University of Texas- Houston Health Science Center School of Public Health
10. Saavedra-Embese, Monica, MPH***. (2008)Barriers to Breast and Cervical Cancer Screening Among Migrant and Seasonal Farm worker Women in the Lower Rio Grande Valley, Texas. The University of Texas School of Public Health
11. Sintes-Yallen, Amanda, MPH***. (2008) Validity and Reliability of a Measure of Latina Mother’s Nutritional Self Efficacy. The University of Texas-Houston Health Science Center School of Public Health.

12. Soleman, Donna DDS, MPH*** (2009) Texas Dentists' Attitudes and Activity Level since the Change in Medicaid Reimbursement Rates. The University of Texas School of Public Health.

Project 4: Decision Making at the End of Life Among Mexican Americans (DELMA)

Project PI's: Arthur Hernandez (UTSA) and David Espino (UTHSCSA)

Study implications:

- Ethnic disparity in regards to medical care is an issue of paramount importance in public health today. Community Mexican American older adult attitudes about end of life treatment and specific procedures are sparsely addressed in previous research on end of life care. These attitudes and the factors associated with them are a critical component in identifying ways to counteract disparities in received care such as resuscitation, tube feeding, and treatment of psychological disorders such as depression.
- Delineating ethnic differences between older Mexican American and non-Hispanic White subject attitudes concerning end of life care will improve quality of medical care for older Mexican American subjects by increasing cultural sensitivity and knowledge of factors that may be prominent in attitude formation.
- Identifying factors within specific ethnic groups that are related to end of life attitudes informs interdisciplinary teams (medical staff, psychiatrists, counselors) what background characteristics are useful to incorporate into patient-professional interactions and increase productivity of interactions.

Questionnaire development

Original project PI's and staff compiled background literature on end of life attitudes, decision making, and ethnic disparities. Based on this work, overseen by Dr. Miguel Bedolla, a questionnaire was developed to address the lack of research involving older, community Mexican American subjects. Demographic characteristics of age, gender, date of birth, income, and occupation were collected. In addition, the questionnaire included the following: Folstein Mini Mental State Examination, Geriatric Depression Scale, measures of religiosity (spirituality, organized religion, and intrinsic religiosity), Instrumental Activities of Daily Living, eleven items assessing life support attitudes, and nine items assessing physician assisted suicide/suicide attitudes.

Data Collection

Data Collection was overseen by current PI's Dr. David Espino and Dr. Art Hernandez. Five research associates participated in data collection. Subjects were approached at family practice, orthopedic, and geriatric waiting rooms. Only community dwelling, non-institutionalized elderly subjects were included. Participation was voluntary and subjects

did not receive compensation. Inclusion criteria included the following: age of 60 years or older within the collection period and score 18 points or higher on a Mini Mental State Examination, indicating no more than mild cognitive decline (Black et al, 1999). Interviews were conducted in subjects' preferred language of English or Spanish. Subjects were excluded if they requested proxy support in the completion of the questionnaires. In the event that a subject could not finish the questionnaire when originally administered, the subject's telephone number was requested. For telephone interviews, a study protocol with a telephone script was developed for our interviewers. Researchers made contact with 642 individuals. Of these, 380 refused, 40 withdrew or were excluded after consent, and 222 were included in data analysis. 208 subjects qualified as Mexican American or non-Hispanic White decent.

Presentation of results and manuscript development

The manuscript entitled, "Comparison of Attitudes toward Physician Assisted Suicide between Older Mexican American and non-Hispanic White Older Adults" was accepted for publication in the Journal of the American Geriatrics Society on February 24, 2010 and is in press. The manuscript entitled "Attitudes Regarding the Use of Ventilator Support at the End of Life Among Community Dwelling Mexican American and Non Hispanic White Older Adults" was recently rejected by The Gerontologist and is currently under revision and will be submitted to The Journal of Medical Ethics in April. A third manuscript entitled, "Attitudes toward End-of-Life PEG Tube Feeding Among Older Mexican American and Non-Hispanic Whites" is under revision and will be submitted for publication to the Journal of the American Medical Directors Association.

In addition, a number of presentations have been selected or are in review and are summarized below:

1. Arthur E. Hernandez, David Espino, Robert Wood, Johanna Becho, Rosemarie Lillie Macias, Melissa Talamantes, Miguel Bedolla, Alejandro Bocanegra. Decision Making at the End of Life in Mexican American Aged: Preliminary Findings. Presented at the 136th American Public Health Association Annual Meeting October 2008, San Diego, CA.
2. Melissa Talamantes, David V. Espino, Arthur E. Hernandez, Johanna Becho, Rosemarie Lillie Macias, Robert Wood. A Comparison of Beliefs about Suicide and Physician Assisted Suicide Among Hispanic and Non-Hispanic White Older Adults. Presented at the Gerontological Society of America 61st Annual Scientific Meeting. November 2008, Baltimore, MD.
3. Rosemarie Lillianne Macias, David Espino, Arthur E. Hernandez, Robert Wood, Johanna Becho, Melissa Talamantes, Alejandro Bocanegra, Miguel Bravo. A Comparative Study of End-Of-Life Planning by Mexican American and European American Older Adults. Presented at the National Latina/o Psychological Association Conference. November 2008, Costa Mesa, CA.
4. M. Rosina Finley, David V. Espino, Rosemarie Lillianne Macias, Robert C. Wood, Yangping Ye, Arthur E. Hernandez, Johanna Becho, Melissa Talamantes. PEG

- Tube Feeding Attitudes in an Older Adult Mexican American Population: Implications for Long Term Care End of Life Discussions. Presented at the American Medical Directors Association Conference. March, 2009. Charlotte NC.
5. Lydia Villa (UTSA), et. al. Church Attendance and End of Life Attitudes among Community Dwelling Mexican American Older Adults. Presented at the 2009 *23rd National Conference on Undergraduate Research (NCUR)* University of Wisconsin-La Crosse.
 6. Rosemarie Lillianne Macias, BA, Arthur Hernandez, PhD and David Espino, Instrumental activities of daily living disability among community-dwelling Mexican American and non-Hispanic White older adults. Poster presentation at *APHA Annual Meeting*, November, 2009.

Substudy Conclusions & Implications

The final results indicate clear differences between Older Mexican Americans and Non Hispanic Whites with regard to end of life decision making in two of three cases.

With regards to physician assisted suicide (PAS), gender and depressive symptoms predicted attitudes among the older Mexican Americans while among non-Hispanic Whites, religiosity remained the only related factor even when controlling for age, gender, education, and depressive symptoms. With regards to PAS, depressive symptoms may play a more significant role in the decision to support physician assisted suicide among older Mexican Americans, while religious considerations may be more important factors for the non-Hispanic Whites.

With regards to use of artificial tube feeding (PEG) there was no ethnic difference, rather and educational/age interaction with elders' with lower levels of education having attitudes that differ by age, with younger elders tending to hold more favorable attitudes than those in their late seventies and eighties.

With regard to use of a ventilator, third generation older Mexican Americans and those with IADL disability are less likely to prefer end-of-life ventilation support while those with depressive symptoms are more likely to prefer support. The interesting results that we saw beg further studies to better understand if these factors indeed are generalizable differences between older Mexican Americans and Non Hispanic whites or if the differences disappear in a more diverse subgroup comparison.

LIST OF PUBLICATIONS AND PRODUCTS

Publication:

1. Parchman, M. L., Flannagan, D., Ferrer, R., Matamoros, M. Physician's communication competence, patient self-care behaviors, and glucose control. *Patient Education & Counseling* 2009; 77:55-59.
2. Flannagan, D., Ferrer, R., & Parchman, M. L. (manuscript in review). *Patient-physician discussions about nonadherence to treatment regimes.*

3. Andrade, L., Plowman, D.A. & Duchon, D. (Forthcoming). Getting past conflict reduction: A complexity view of conflict. *Emergence: Organizations and Complexity*.
4. Plowman, D.A. & Duchon, D. (Forthcoming). Emergent leadership: Getting beyond heroes and scapegoats. In J. Hazy, J. Goldstien, B. Lichtenstein (Eds.), *Complex Systems Leadership Theory*, Mansfield, MA.: ISCE Publishing Company.
5. Plowman, D.A. & Duchon, D. (Forthcoming). Dispelling the myths about leadership: From cybernetics to emergence. In R. Marion, M. Uhl-Bien & P. Hanges (Eds.), *Complexity Theory and Leadership: Leadership Dynamics in the Knowledge Era*, Charlotte, NC: Information Age Publishing Inc.

Presentations:

1. Matamoros, M., Flannagan, D., Parchman, M. L., & Ferrer, R. (May, 2007). *Elements of communicative competence demonstrated by physicians related to topics discussed during medical consultations and patient characteristics*. Presented at the annual meeting of the Midwestern Psychological Association, Chicago, IL.
2. Villarreal, R., Flannagan, D., Parchman, M. L., & Ferrer, R. (May, 2008). *Patient noncompliance accounts, physician compliance-gaining strategies, and characteristics of patients and their care*. Presented at the annual meeting of the American Psychological Society, Chicago, IL.
3. Garza, R.T., Lopez, S.G., & Gonzalez-Blanks, A. G. *Preventing Smoking among Hispanic Youth: The Application of Latino Cultural Dimensions in Promoting Healthy Attitudes and Behavior*. Presented at the 15th Annual Latino Behavioral Health Institute Conference, Advancing Latino Behavioral Health: from Margin to Mainstream, Universal City, California, September 23, 2009.
4. Lopez, S. G., Garza, R. T., Moring, J., & Gonzalez, Ana G. *The Use of Collectivism and Individualism in Attitudes Against Smoking for Hispanic Youth*. Presented at the Southwestern Psychological Association Convention, San Antonio, Texas, April 3, 2009.
5. Gonzalez-Blanks, A., Garza, R. T., & Lopez, S. G. *Collectivism and Individualism in Attitudes about Smoking in Hispanic Youth*. Presented at the COLFA Research Competition, University of Texas at San Antonio, March 20, 2009.
6. Lopez, S. G. & Garza, R. T. *Smoking Among Hispanic Youth: Implementing a Collectivist Orientation for Healthy Attitudes and Behavior*. Presented at the Third National Leadership Summit on Eliminating Racial and Ethnic Disparities in Health, National Harbor, MD. February 25-27, 2009.
7. Lopez, S., Garza, R. T., and Gonzalez-Blanks, A. *Promoting Healthy Eating in Hispanic Youth: It Could Take a Village*. Presented at the 16th Annual Latino Behavioral Health Institute Conference, Advancing Latino Behavioral Health: from Margin to Mainstream, Universal City, California, September 22-24, 2009.
8. Arthur E. Hernandez, David Espino, Robert Wood, Johanna Becho, Rosemarie Lillie Macias, Melissa Talamantes, Miguel Bedolla, Alejandro Bocanegra. *Decision Making at the End of Life in Mexican American Aged: Preliminary Findings*.

- Presented at the 136th American Public Health Association Annual Meeting
October 2008, San Diego, CA.
9. Melissa Talamantes, David V. Espino, Arthur E. Hernandez, Johanna Becho, Rosemarie Lillie Macias, Robert Wood. A Comparison of Beliefs about Suicide and Physician Assisted Suicide Among Hispanic and Non-Hispanic White Older Adults. Presented at the Gerontological Society of America 61st Annual Scientific Meeting. November 2008, Baltimore, MD.
 10. Rosemarie Lillianne Macias, David Espino, Arthur E. Hernandez, Robert Wood, Johanna Becho, Melissa Talamantes, Alejandro Bocanegra, Miguel Bravo. A Comparative Study of End-Of-Life Planning by Mexican American and European American Older Adults. Presented at the National Latina/o Psychological Association Conference. November 2008, Costa Mesa, CA.
 11. M. Rosina Finley, David V. Espino, Rosemarie Lillianne Macias, Robert C. Wood, Yangping Ye, Arthur E. Hernandez, Johanna Becho, Melissa Talamantes. PEG Tube Feeding Attitudes in an Older Adult Mexican American Population: Implications for Long Term Care End of Life Discussions. Presented at the American Medical Directors Association Conference. March, 2009. Charlotte NC.
 12. Lydia Villa (UTSA), et. al. Church Attendance and End of Life Attitudes among Community Dwelling Mexican American Older Adults. Presented at the 2009 *23rd National Conference on Undergraduate Research (NCUR)* University of Wisconsin-La Crosse.
 13. Rosemarie Lillianne Macias, BA, Arthur Hernandez, PhD and David Espino, Instrumental activities of daily living disability among community-dwelling Mexican American and non-Hispanic White older adults. Poster presentation at *APHA Annual Meeting*, November, 2009.
 14. M. Rosina Finley, S. Lilliana Oakes, Y.P. Ye, David V. Espino. Ventilator Treatment Preference in an Older Adult Mexican Americans at the End of Life: The DELMA study. Presented at the American Medical Directors Association Conference. March, 2010. Long Beach, CA