Symbolic Interaction and Applied Social Research: A Focus on Translational Science Research

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In symbolic interaction, a traditional yet unfortunate and unnecessary distinction has been made between basic and applied research. The argument as been made that basic research is intended to generate new knowledge, whereas applied research is intended to apply knowledge to the solution of practical (social and organizational) problems. I will argue that the distinction between basic and applied research in symbolic interaction is false. The masters of symbolic interactionist thought have left us a proud legacy of shaping their scholarly thinking and inquiry in response to and in light of practical issues of the day (e.g., Znaniecki, and Blumer). Current interactionist work continues this tradition in topical areas such as social justice studies. Applied research, especially in term of evaluation studies, can be designed to serve both basic and applied goals. Symbolic interaction provides three great resources to do this. The first is its orientation to dynamic sensitizing concepts that direct research and ask questions instead of supplying a priori and often impractical answers. The second is its orientation to qualitative methods, and appreciation for the logic of grounded theory. The third is interactionism’s overall holistic approach to interfacing with the everyday life world. The present illustrative case is the qualitative component of the evaluation of an NIH-funded, translational medical research program. The qualitative component has provided interactionist-inspired insights into translational research, such as examining cultural change in medical research in terms of changes in the form and content of formal and informal discourse among scientists; delineating the impact of significant symbols such as "my lab" on the social organization of science; and appreciating the essence of the self-concept "scientist" on the increasingly bureaucratic and administrative identities of medical researchers. This component has also contributed to the basic social scientific literature on complex organizations and the self.

Keywords: symbolic interaction, basic research, applied research, evaluation, needs assessment, translational science
What do these famous social theorists have in common: Robert E. Park, Herbert Blumer, Erving Goffman, and Peter Hall? For one, they are all to some degree friendly to the symbolic interactionist project, as it has evolved over the years. For another, they are all at least philosophically inclined towards the value of qualitative research methods.

Like a large number of sociologists in general, these scholars have conducted what we today refer to as applied social research. We can define applied social research as efforts to address the practical concerns of organizations and agencies through the use of social scientific theory, methods and analytical tools (cf. Hays 2012). Robert E. Park began his career as a journalist and also worked over the years in public relations (1915. Herbert Blumer, who is commonly considered the founder of modern symbolic interaction, conducted a policy-oriented study of the effects of movies on conduct (1933). Ervin Goffman’s classic analysis on mental illness was derived from his National Institute on Mental Illness-funded study of mental institutions (1961). A contemporary symbolic interactionist, Peter T. Hall, has established a national professional identity as an expert on social and educational policy (1997). These scholars have advanced interactionist scholarship while providing sponsors or employers with practical insight into their concerns.

In the discipline of sociology, a strong distinction between basic and applied research has been sustained for decades. On the one hand, the proponents of basic research have argued that this approach enhances the scientific status of sociology by addressing sociological questions independent of ideological or situational concerns (Straus 2009). Many social scientists believe that basic research is more intellectual,
more theoretical, and more politically and economically “pure.” They also argue that one does applied social science for the money, not for the knowledge. On the other hand, applied proponents have argued that applied research is the test of the ultimate value of our work in helping solve social problems and shape social policy. One rarely finds efforts in the literature to either combine the two approaches or acknowledge any scholarly relationship between the two.

I will argue that the alleged distinction between basic and applied social research is false, outdated, and dysfunctional for everyone involved. In terms of symbolic interactionism in particular, we not only have a healthy tradition of doing both, we are in the fortunate position of being able to design our research agendas to do both simultaneously, thus doing each better. There are at least three reasons why we should integrate the two approaches when feasible. First, symbolic interactionism has always maintained an intimate stance towards the everyday life world, and its concerns, theories and languages. Second, symbolic interactionism has always shown analytical and policy concern for what are commonly referred to as social problems. SI’s development of labeling theory and its close sibling, social constructivism, has led interactionists to heed Howard Becker’s (1963) dictate that we both study and show empathy for “those more sinned against than sinning.” Third, symbolic interactionism’s holistic orientation both culminates in and is illustrated by a respect for if not always strict adherence to grounded theory (Charmaz 2006).

The value of our interactionist approach to the real world is clear. Our theory and procedures for creating sensitizing concepts (Blumer 1969) provide our clients and
research partners with an understanding of interactional and organizational phenomena through the perspectives, experiences and languages of their clients, customers, patients, and students. The value of our interactionist approach to our work and identities as scholars is, I believe, underappreciated. Applied research can provide interactionists with ideas, insights, resources, respondents, “proving grounds,” and the satisfaction of practical value of one’s good work. Perhaps most importantly, applied—and especially qualitative—research is increasingly complementary to the growing movement in the sciences in general towards inter and cross-disciplinary translation. My primary, but not sole, example is applied research in the world of health care.

SYMBOLIC INTERACTIONISM AND APPLIED RESEARCH

I have conducted applied or policy-related research for over thirty years, yet I clearly do not identify as an “applied sociologist.” This term is ordinarily reserved for individuals, with graduate training in sociology, whose job involves conducting research in order to help solve a practical problem for an employer or sponsor (Straus 2009). These individuals commonly do not identify as, or are identified as, “sociologists” in the workplace. In general, applied sociologists are hired for the particular conceptual, methodological, and analytical skills they offer corporations, agencies, and governmental institutions.

More commonly, interactionists engage in applied work as part of their regular academic appointments. Sometimes the work is conducted as consulting; sometimes it is part of a professor’s regular workload. In either case, interactionism adds a distinctive
flavor to the problems addressed in and by the “real world,” a set of skills or resources that is unique among the social and behavioral sciences. In the spirit of symbolic interactionism, I will describe these resources in terms of the experience of them in actual everyday life research situations. I use these resources to conduct basic and applied research, but also to integrate the two in scholarly and pragmatic ways. These resources include: a team approach to studying the social world; the spirit of grounded theory, and the logic of discovery; and the melding of basic and applied research goals.

In order to explain these resources and illustrate their scholarly and pragmatic value, I will describe their presence in and usefulness to particular projects, the most significant of which is the evaluation of a translational science research project. I will first briefly describe the university-based research center that now houses these research projects.

**THE CENTER FOR SOCIAL INQUIRY AND TRANSLATIONAL SCIENCE RESEARCH**

The Department of Sociology at Texas State University established The Center for Social Inquiry (CSI) in 2010 to grow the department’s research profile (Http://www.soci.txstate.edu/csi). The incentive if not pressure to grow have come from both external and internal sources. Externally, state as well as university leaders see Texas State University as an institutional mechanism to increase enrollments in practical (read: job related) areas of study, create research activities that are both community and private sector friendly, while maintaining a reputation for exceptional undergraduate and graduate education. Internally, the sociology faculty saw the value of engaging in research activities that attract resources to improve individual as well as
collective scholarly profiles. The specific objectives of the CSI include providing an
organizational home for external grants and contracts; facilitating efforts by department
faculty to assemble grant and contract proposals; facilitating the assembly of
multidisciplinary research teams comprised of faculty from across the university;
integrating graduate and undergraduate students into high-quality research projects;
and preparing the scientific, organizational, scholarly, and intellectual platform for the
anticipated establishment of a Ph.D. program in sociology. The CSI has conducted
studies on topics ranging from diversity on hospital boards of directors and human
services delivery in an urban area to the evaluation of an integrated behavioral health
care; needs assessment for a local Project Head Start; and music as a resource for
community development.²

When I joined Texas State University in 2010 to establish the CSI, I brought my
contract with the University of Texas Medical Branch, Galveston (UTMB) with me. While
chair of sociology at the University of Houston, I began working with UTMB to design
and provide a qualitative research component for their Clinical and Translational Science
Award (CTSA) program evaluation. The CTSA at UTMB is one of forty-six similar grants
awarded by the National Institutes on Health. Translational science research (TSR) is a
growing scientific movement that aims to facilitate the efficient application of bio-
medical research to clinical services design and delivery (i.e., improving and expediting
the “bench-to-bedside” process). My work began as an evaluation exercise, but quickly
acquired a series of basic social science studies inspired and informed by symbolic
interaction.
The following is a list of the most valuable resources interactionists can contribute to the melding of basic and applied research. Bear in mind that I am generalizing across certain specific formats of applied research, for example, action research, needs assessment research, and evaluation research (Hays 2012)³.

Symbolic interactionism supports a team approach
to the study of the everyday life social world

The social scientific research literature has traditionally framed interactionist-inspired qualitative applied research as a supplement to quantitative research. The most intellectually demeaning view is to posit qualitative methods as preliminary to quantitative research, or pilot research. The argument is that the in-depth and meaning-intensive posture of qualitative methods, along with its orientation towards discovery, can help quantitative researchers develop valid survey items and coping schemes (Rutman 1980). This stance assumes that the understanding we receive from research is linear and cumulative: qualitative methods can point to factual aspects of the phenomenon in question that can be verified through quantitative methods.

Interactionist methods have evolved considerably beyond this simple service orientation, as has appreciation for its methodological strengths. Qualitative researchers demonstrated a bit more epistemological self-confidence when calling for triangulated applied research by which multiple methods directed towards the same phenomenon are brought together to enrich findings (Berg and Lune 2012, pp. 5-8). Denzin (1978, p. 295) extended this argument by stating that effective triangulation is a
combination of *multiple lines of action* that include theories, researchers and data-collection technologies.

Symbolic interactionism counsels us that a complex social situation like triangulated research involves much more than simply forging a rational design among fairly like-minded colleagues, since participants must work hard to create a working, shared understanding of their research (Sandstrom, et al 2014, p. 185). Further, applied social research may be especially complex because it increasingly involves researchers from contrasting disciplines and professions (e.g., clinical versus natural versus academic scientists); representing different levels of training (e.g., Ph.D.s versus M.D.s versus M.B.As); holding different positions within the organizations (e.g., faculty versus staff versus contractors); with different commitment to the goals and success of the study. Of the three lines of action denoted by Denzin, interaction always boils down to the particular individuals involved in the project, which can include many other actors in addition to “researchers” (e.g., staff, managers, contractors, consultants, investigators, and students). The growing importance of complex applied research results from the growing need for evaluation of government-funded research (e.g., NIH, CDC, and NEH) and needs assessment for service delivery organizations.

What are the interactional dynamics of which interactionists should either be aware or could introduce into complex applied research situations? Weiner and Wysmans (1990) present several good clues based upon a conference held in the Netherlands on grounded theory (see below) in medical research. Conferees discussed how one must occasionally *negotiate* the value of qualitative methods with the
principles of an evaluation study, the success of which based largely on being able to explain the value of qualitative methods separate from simply noting its similarity to the quantitative methods being proposed or used. Another clue is to clarify the fact that one can conduct comparative qualitative research, a feature of any method appreciated by the quantitative researchers in the situation.

Perhaps the best way to handle issues such as triangulation and collaboration is by conceptualizing and structuring the research group as a true team. The team concept has become quite fashionable in science, engineering, and medical research since the 1970s (Jones, Wuchy, & Uzzi 2008). The rationale is that increasingly specialized scientific fields must develop collaborations to enhance creativity and accelerate the pace of discovery (Disis & Slattery, 2010). The CTSA project cited in this paper is structuring its research projects according to a model referred to as multidisciplinary translational teams (MTTs) (Calhoun et al., 2012). The MTT is a unique hybrid structure that includes goals of both an academic research team in knowledge generation and training with those of a product-driven business team to develop a device or intervention for clinical translation (Wooten, et al 2013).

I design all my qualitative research groups on Jack Douglas’ (1976) concept of team field research. Accordingly:

team field research involves a number of people working together in a flexibly planned and coordinated manner to get at the multiperspectival realities of a group, constructing the team to achieve the research goals of the project in the concrete setting, utilizing their specialized abilities and opportunities of the
various team members, providing both support and crosschecks on the work of each member by the other members, and all members (ideally) providing creative inputs to the research, the grasping, the understanding and the final report (Douglas 1976, p. 194).

Douglas’ model lies directly in the center of interactionism since it focuses attention on group activity as ongoing process as well as organizational structure. The team insists on equality among members, and the value of all members contributing as much as they can to all aspects of the study. Too much effort to establish a rational division of labor can be alienating, hinder students from learning all aspects of qualitative research, and block creative effort.

The evaluation group I joined at UTMB consisted of an organizational psychologist, a statistician, a clinical psychologist, a professor of ethics, and a psychiatrist. The group was originally assembled as a traditional NIH evaluation team that designed protocols to measure the success of new translational science projects. Success would be gauged in terms of increases in the number of patents obtained, major NIH grants awarded (i.e., RO1 awards for senior researchers and K awards for junior researchers), decreased time between scientific discovery and actual clinical application, and so forth. As Loseke (2013, p. 20) notes, deductive logic and positivistic methods are suitable for topics for which a great deal is already known. In the case of our group, the criteria for success were well established in the bio-medical research literature. Subsequently, my colleagues designed structured surveys, coding, and logic models to measure changes due to the introduction of the translational research
What did I bring to the table? How could I help transform this into a group into a team? At first, it was not clear what was expected of me, except to fulfill the NIH-mandated dictate to conduct evaluation of CTSA projects with multi-methods strategies. As has been typical in my research with similar agencies and organizations, my new colleagues and sponsors had little initial expectation—let alone understanding—of my interactionist paradigmatic orientation. The general lesson is clear: use the initial period of design uncertainty to implant symbolic interactionist sensitivities into the more general team project. My interactionist orientation allowed me to (1) establish the need to understand the translational research project from the participant’s perspective; (2) design our interviews to be conversational in style in order to generate as natural talk—in semantics and syntax—as possible; and (3) explore the commonsense and often taken-for-granted features of translational science research through interviews and observations.

Perhaps the most important idea I brought to the table was to operationalize my job as a study of culture change at UTMB. I would examine changes in the practical rules of scientific discovery, the values reflected in the scientists’ work, the ways they talk, make decisions, and relate to each other on an everyday life basis. I invited my teammates to join me in assembling portraits of the culture of science. They not only enjoyed the exploration of taken-for-granted science, but we all appreciated the fact that my work was not simply a duplicate of the survey items in conversational form.
The initial phase of the qualitative study supports three main principles of the interactionist perspective on complex organizations, as illustrated by the elegant stories participants forged during our conversations with them (Ellis 2003). First, the CTSA project evolves as an organizational component of the medical center as participants seek meaning for practical problems that emerge, for example, integrating CTSA project activities into pre-existing research agendas (Blumer 1969). Second, the strength and productivity of participants’ relationships in clinical and translational science work are a result of personal considerations that often preclude administrators’ rational attempts to assemble research teams and create shared research interests (Smith 1984). Third, the quality of one’s voluntary participation in translational science work is strongly related to one’s ability to manage multiple and sometimes conflicting self-identities, for example, a prominent bio-medical researcher also serving as just a regular team member on a CTSA project (Manning 1973).

I’ve used the team logic to conduct qualitative research in several other major studies, and here are three examples. The first, using qualitative methods exclusively, was a study of the varieties of Latino music scenes in Houston, Texas (Nowotny, et al 2010; Kotarba, et al 2009). With a group of sociology graduate students contributing to all aspect of the study, we refined and expanded the interactionist-inspired concept of the music scene (cf. Irwin 1977). The applied aspect of this line of research is its relevance to positioning live music as a resource for community development (Kotarba 2013). The second, using a blend of survey research and focus groups, was an interdisciplinary needs assessment study for the Human Services Board of the City of
San Marcos, Texas. Our team consisted of two sociologists, a professor of social work, a professor of health care administration, and two sociology graduate students (Chee 2013). The third was an ethnographic study of professional female athletes’ injury prevention and care and management (Kotarba 2013c). This particular project resulted in three M.A. theses.

The Spirit of Grounded Theory and the Logic of Discovery

One of the most important and exciting resources symbolic interactionism offers applied research is its commitment to discovery. Unlike mainstream hypothetical-deductive research that builds upon existing knowledge, interactionism encourages us to be open to the discovery of aspects of everyday life previously ignored or simply not observed by researchers. The core doctrine in this regard is grounded theory (Charmaz, 2006) which directs the qualitative researcher to approach the everyday life world open-minded and, if you will, analytically naïve. We use our rich observations of patterns in social life to create what Blumer (1969) referred to as sensitizing concepts that direct further research while getting us to think analytically throughout the course, of the study.

Our research at UTMB resulted in two analytical models derived directly from the interviews and validated by the observations. Two themes emerged from the stories that were pervasive in the everyday life in a medical research setting in general and in an innovative translational research project specifically: one theme derived totally from interviews and observations, dilemmas, and one utilizing a major symbolic interactionist concept, significant symbols (Kotarba, et al 2013). Dilemmas refer to problems
organizational members face in doing their work. Dilemmas in and of themselves are common and expected features of any group activity. We can define dilemma as a situation that requires the actor to decide how to proceed (Maines 2001). Individual and group activity, whether in terms of establishing an organization, equipping a lab, or designing a study, is not automatic or necessarily obvious. We developed the concept of dilemma in preference to the prevailing structuralist concept of block (Sung, et al 2003), which is based upon problems in conducting translational science from the perspective of the medical school or university administration. Our goal was to discover problems that the scientists themselves actually perceived, experienced, and eventually resolved or at least controlled in order to permit the continued participation in the translational agenda. The concept of dilemma fits the symbolic interactionist approach by focusing attention on the process by which problems are perceived, defined, and addressed (Waskul 2009). Instead, the emergent nature of the CTSA project is such that the process by which dilemmas emerge—are identified as such—and are approached should be monitored over time. I will briefly mention four of the more interesting dilemmas. The first dilemma is routine and tradition vs. experiment and innovation. The policy of the CTSA project is to change both the means and the end of biomedical research. Some scientists are not sure whether they could—let alone should—convert. Traditional basic or “bench” scientists argue that the classic scientific method in which they were trained and which they have pursued for years have served them well in terms of discoveries, publications, prestige, and grants. They feel that incremental discoveries made through traditional science are more important than the hope of
major discovery through innovative experiments. The second dilemma is *commitment vs. time constraints*. Traditional bi-medical scientists are used to parceling their work time across several projects simultaneously. Although a 10% time commitment to an innovative translational project may fit traditional standards, the new paradigm works best when each scientist team member commits more fully to the team. The third and perhaps most interesting dilemma is *P.I. vs. Team*. Traditional science is built around the role of the principle investigator, who gets the grant, runs the lab, and manages a staff of post doctoral and graduate students, and earnest assistant professors. The ego and career-investment in the P.I. status system is perceived as threatened by the team concept that requires a bit more equality in participation and decision-making. The fourth dilemma is *Organizational vs. Scientific Expertise*. A number of scientists are frustrated over the dramatically new and extensive organizational work and skills suddenly expected of them. They believe they are inundated with paperwork and organizational logic that has little to do with their mastery of scientific logic.

The concept of *significant symbol* refers to words, images, phrases, or ideas that serve to define what an organization is, who the members are, what activities take place there, and what are the core values that guide those activities (Mead, 1934). I will briefly discuss two. *“The meeting”* is used many different ways to summarize the scientists’ cognitive mapping of the CTSA project. The meeting is perceived concurrently as the major component of the CTSA project; the situation where people get to meet each other and interact; the situation for the dissemination of important information about the CTSA project; something to blame for personal problems, such as lack of time
and confusion over the meaning of translational research (e.g., “I would understand what they want from the team leaders if they explained it better in the meetings;” and a good situation to get subordinates and mentees involved with the CTSA project.

Participation in a team meeting can either enhance one’s status at the medical center or demean one’s status, largely because the rather new complex research team meeting structure exposes either one’s mastery of or deficiencies in translational science. At the very beginning of the CTSA project in particular, “the meeting” was very commonly used in everyday conversation—including our interviews—as a summary trope for everything wrong with the feared changes in traditions. “My lab” is a member concept that serves as a cognitive bridge across the CTSA project, a scientist’s work agenda, and a scientist’s career. “My lab” refers to much more than the physical space and equipment used to conduct scientific research. “My lab” us used in everyday talk to refer to the location for one’s actual work; progress in one’s career (e.g., a cancer researcher describing how he had secured the necessary laboratory resources to conduct NIH-funded research in his specialty); a career goal for graduate and postgraduate students (e.g., “I can’t wait until I have my own lab so I do not have to work in two or three other labs at the same time”); an oasis where a scientist can go to escape the discomforts of meetings, bureaucratic mandates, proposal writing, etc. (e.g., “I can’t wait to get back to my lab, where I know exactly what’s going on”); one’s status among others (e.g., “I need certain types of postdocs to work in my lab . . . my work there is pretty complex and I need assistants who can follow directions and do the lab tasks competently”); a scientist’s problems with administration (e.g., “They promised me informatics support when I came here,
but my lab is always tied up because we cannot get that help’); and an empirical benchmark for one’s career (e.g., “I have one of the largest and best equipped labs on campus—it doesn’t get any better than that.”).

INTEGRATING BASIC AND APPLIED INTERACTIONIST RESEARCH

All the projects we are conducting at the Center for Social Inquiry involve integrated basic and applied goals. The data collection mechanisms, the high quality of data, the continuous conceptualization, the link to the literature(s), and other features of our work apply to both goals. I would also argue that working on basic and applied projects simultaneously makes both better. Applied features help ground our work in practical problem identification and solution. Consequently, we have that many more audiences to impress with our work and to appreciate the value of our work. Likewise, basic features add scholarly elegance and rigor—as well as publishability—to applied projects.

One of the most exciting basic “spin-offs” from applied work in the Center is a thread we are following on the self-identity of the “new scientist” (Kotarba 2013b). Whereas translational science is changing the ways scientists accomplish their work—with greater emphasis on formal tasks such as novel methodologies, team research design, and creative procedures for health care delivery—a key feature of the related cultural change is the way translational science impacts not only what the scientist does, but also how the scientist perceives him or herself. Translational science now places expectations on scientists to become specific kinds of leaders with organizational, business, and pedagogical as well as scientific skills. Some thoughtful scientists are
concerned that translational science produces an over-appreciation of rationalistic and organizational pathways to discovery. They fear the possible loss of appreciation for the non-rational, intuitive and personalistic dimensions of discovery. Senior scientists generally voiced this concern. Some scientists were initially concerned that the growing emphasis on the business model would turn them into businesspersons, at the expense of their strong self-identity as intellectuals. In interview, they voice the increasing understanding that they do not have to abandon their comfortable and powerful self-identity qua scientist. Instead, their more essential self-identity as smart, bright person empowers them to turn the business side of translational science into simply another body of knowledge and practice to master, a task they increasingly feel comfortable accomplishing.

My work on the new scientist is directed towards two audiences. The first is the applied audience of CTSA administrators seeking understanding of and strategies for managing high-powered scientists. The second scholarly audience is composed of social scientists interested in studies of contemporary issues in science, technology, health care and self-identity development.

To sum up this paper, I will return to the team table addressed earlier. Here are a number of suggestions for resources the symbolic interactionist can bring to the table.

• Interactionists are generally good applied team members. We have learned this skill as a result of having to work on teams with non-sociologists, let alone non-interactionists, often in subservient positions. We know how to interact.

• Research is fun for us. We enjoy meeting new people, exploring new social
scenes, and tackling new analytical puzzles. Research must be fun for interactionists, since it takes much time, effort and energy to spend as much time in the everyday life (i.e., field) to do our research. Non-interactionists are impressed by our enthusiasm; thus our credibility is enhanced.

• As interactionists with a strong dash of phenomenology and ethnomethodology, we appreciate the importance of the ordinary. Non-interactionists are impressed with this skill, since they probably take the nuts-and-bolts processes of everyday life for granted and thus miss an important side of the explanations for how groups and organizations really work.

• We not only value quality publications, but we know how to publish in a wide range out outlets. Our journals (e.g., Symbolic Interaction, Contemporary Ethnography and Social Problems) are general and not like many non-interactionist journal that are quite substantively narrow, as in the area of health research.

• Make arrangements for the basic research component of the study early, at least as early as when forging a contract with the sponsor. That will not only help with making the study design integrated, but will also impress the sponsor with your ability and willingness to publish from study. Many sponsors see publications, scholarly and otherwise, a good visibility for their work.

• Do not push terminology like “symbolic interaction” on the sponsor if it will lead to confusion. The sponsor may not be interested in your theory just your ability to generate findings.
• If you are required to submit your study to a human subjects committee, be sure to include basic research goals in the application.

• Take advantage of the solid “team” dimension that is desirable in qualitative research (e.g., Jack Douglas’ multiperspectival approach).

• Take advantage of the fact that “real world” people, like scientists, really enjoy interactionist concepts—not theory--rich in metaphor, color, and commonsense.

If you design your interactionist-informed study to include both basic and applied components, you will maximize the payoff for all your work. Again, the distinction between basic and applied qualitative research is overstated and often just plain false.

Good research is good research.

NOTES

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2 The following is a list of recent and current projects conducted through CSI:

• “Diversity Among Health Care Trustees,” a Policy White Paper for the Texas Healthcare Trustees (Dr. Debarun Majumdar and Dr. Bob Price, P.I.s)

• “A Needs Assessment of Human Services Delivery,” for the City of San Marcos, Texas (Dr. Joseph A. Kotarba, P.I.)
• "Evaluation Research for Integrated Behavioral Health Care Phase II," for the George Foundation (Dr. Toni Watt, P.I.)

• “Head Start Program Community Needs Assessment“ (Dr. Kyong Hee Chee, P.I.)

• “Music as a Feature of Community Development” (Dr. Joseph A. Kotarba, P.I.)

• “Evaluation of Translational Science Research” for the Institute for Translational Science/UT Medical Branch-Galveston (Dr. Joseph A. Kotarba, P.I.)


4 Patton (2012) uses the term holistic in his discussion of the value of assembling an integrated research group.

REFERENCES


