

**Behavioral and Social Sciences Training, Education, and Career
Development in the
Clinical & Translational Science Awards Program**

A Workshop Summary

**May 11, 2010
Parklawn Building
5600 Fishers Lane, Rockville, MD**

**Sponsors
Office of Behavior and Social Sciences Research (OBSSR)
Clinical & Translational Science Awards Program (CTSA)
National Institutes of Health (NIH)**

Welcome and Introduction of the Topic

Paul R. Marantz, MD, MPH: Einstein-Montefiore Institute for Clinical and Translational Research

Donna Jo McCloskey, PhD: National Center for Research Resources

Lynn A. Bosco, MD, MPH: Office of Behavioral and Social Sciences Research

This half-day Workshop was the first activity of the Clinical and Translational Science Awards/Behavioral and Social Sciences (CTSA/BSS) Liaison Program (LP). The purpose of the LP is to facilitate the integration of BSS into the CTSA program. Recommendations from the Workshop will provide guidance to National Center for Research Resources (NCRR), OBSSR and NIH in the development of ideas that can promote and enhance the education and training of behavioral and social scientists and clinical and translational scientists within the CTSA.

For this initial activity, participants discussed existing and potential resources within the CTSA and OBSSR. Additionally, they discussed the core requirements for both training behavioral and social sciences researchers (BSSR) in the translational sciences and training translational scientists in the BSS. The final report of this workshop will be made available to the CTSA education and training coordinators. The information can be used to increase the presence of BSS in the CTSA curricula.

The Workshop was held in conjunction with the Annual Community Engagement Key Function Committee (CE-KFC) Face-to-Face meeting to facilitate the participation of BSSR and incorporation of BSS into the discussion of community engagement.

The National Institutes of Health Clinical & Translational Science Awards Program

Speaker: Donna Jo McCloskey, PhD: National Center for Research Resources

Dr. McCloskey described the role and function of the CTSA. The CTSA program began in 2006 with grants to an initial twelve academic health centers. Other centers were added in each annual round of expansion to 46 sites at the time of this Workshop, with a goal of 60 sites and a budget of \$500 million by 2011.

The five strategic goals of CTSA are enhancing:

- National clinical and translational research capability
- Training and career development of clinical and translational scientists
- Enhancing consortium-wide collaboration
- Enhancing the health of our communities and the nation
- T1 translational research

Each CTSA must include education and career development as a key function. Otherwise, each Center is free to shape its program activities to local needs and interests. The program envisions continuous feedback loops between bench—bedside—community practice so that each informs the other in the iterative process of evolving research and care to ultimately improve the health of the nation.

The CTSA educational component should include one or more graduate degree granting and postgraduate programs in clinical and translational sciences and include a common foundational

knowledge base for clinical and translational science researchers irrespective of their primary interest, degree, or discipline. These components are:

- TL1: an optional component that is similar to a T32 training mechanism, which most centers have chosen to implement
- KL2: a mandatory component that provides career development support for junior faculty to pursue education and mentored research training

More information on the program is available at www.CTSAweb.org

Office of Behavioral and Social Sciences Research: A Resource for Clinical and Translational Sciences Research

Speaker: Deborah H. Olster, PhD: Office of Behavioral and Social Sciences Research

The Office of Behavioral and Social Sciences Research (OBSSR) is housed in the Office of the Director of the NIH, with the mission of stimulating behavioral and social sciences research throughout NIH and to more fully integrate these sciences into all research activities where appropriate, toward improving the nation's health. NIH uses the following definitions (see http://obssr.od.nih.gov/about_obssr/BSSR_CC/BSSR_definition/definition.aspx for the full definition of *behavioral and social sciences research*):

- *Behavioral* refers to overt actions; to underlying psychological processes such as cognition, emotion, temperament, and motivation; and to biobehavioral interactions
- *Social* refers to sociocultural, socioeconomic, and sociodemographic status; to biosocial interactions; and to the various levels of social context from small groups to complex cultural systems and societal influences
- Behavioral and social sciences research includes both basic and applied research, and draws upon a large number of scientific disciplines

The current research priorities of OBSSR, as articulated in [*The Contributions of Behavioral and Social Sciences Research to Improving the Health of the Nation: A Prospectus for the Future*](#), are:

- Next generation basic behavioral and social sciences research, including approaches that take advantage of new discoveries and tools linked to the biological sciences
- Interdisciplinary research based on the need for employing theories, approaches, and solutions from numerous scientific disciplines to tackle complex health problems
- Systems-thinking approaches to health that take into account the dynamic interaction among behavioral, social, biological, and all other factors, as well as their change over time; often through the use of models to gain insight to how an intervention might change the overall dynamics, both positively and negatively
- Population impact to ensure that interventions and impact of all behavioral and social sciences research extends beyond the individual patient and improves the health of entire populations

Almost all biomedical interventions have behavioral and social components to them. Better understanding of factors such as adherence, for example, can have a great impact on the efficacy of the intervention. Moreover, clinicians must understand the volunteer effect, decision-making, motivation, culture, and other behavioral and social factors that affect the outcome of clinical trials and clinical care.

Basic behavioral and social sciences research might focus on the mechanisms underlying emotion or cognition; how habits are formed, and pathways to changing behavior once it is established, for example the use of incentives; the impact of culture on how it shapes behavioral norms; and the methodology of designing better tools for assessment and intervention. The level of study can range from a cell culture, to the individual, to the society.

The mission of OBSSR and the stated research priorities of the CTSA program overlap in numerous ways. OBSSR supports the translation of basic BSS research into effective interventions to improve health (“Translation 1”), as well as using findings from BSS research to inform the development of biomedical interventions.

The Office supports training institutes, web-based training resources and funding initiatives to improve training in clinical/translational research (“Translation 2”). OBSSR has a strong interest in this research, as demonstrated by its organization of the annual meetings, *The Science of Dissemination and Implementation*, and leading initiatives in community-based, participatory research.

In summary, OBSSR sees value in supporting the training of behavioral and social scientists in clinical/translational research as well as the training of all clinical/translational researchers in some behavioral and social sciences research, and looks forward to working with the CTSA program to further these goals.

Panel: Existing Models for Education, Training, and Career Development in the Behavioral and Social Sciences

CHAIR: Donna Jo McCloskey, PhD: National Center for Research Resources

**Bringing Behavioral and Social Sciences into a Community Engagement Core:
A Preliminary Report**

Speaker: Nancy M. Bennett, MD, MS

Clinical and Translational Science Institute, University of Rochester

The CTSA at the University of Rochester has established the Healthy Living Research Center, funded by a NCR American Recovery and Reinvestment Act of 2009 (ARRA) supplement; in response to research priorities determined by its community advisory council and other community stakeholders. This community health priority was driven by factors such as a doubling of the rate of diabetes in five years, an epidemic of obesity, and significant health disparities related to obesity, hypertension, diabetes and heart disease.

The goal of the Center is to bring together community interventions, policy, behavioral science, social sciences, and research that can address the underlying science of these approaches. Economic stimulus funding through the CTSA allowed them to begin to implement the Healthy Living Research Center program, opening its doors in January 2010.

The Center developed a business model of services for University employees and local insurers. The concept is to develop models that will work on a clinical level and within the community. It is operated by five shared-time faculty and eleven staff and will add medical, public health, and nursing students beginning in the summer.

The Center faculty will translate evidence-based programs that have been shown to be effective in research settings to clinical and community settings, and evaluate how that translation works. In

addition, the Center will do research to elucidate the underlying mechanisms of behavior and behavior change.

Much of the work will focus on “self-determination theory” and how that plays out in clinical and community settings. “Can we understand human behavior better so that we can help people to change? And once we have that understanding, can we translate programs into a variety of clinical and community settings?” Better understanding of behavior change will be critical to the development of successful prevention policies and programs in the future. In addition, such a multidisciplinary center will provide fertile ground for education in behavioral science and research.

What a Social Scientist Brings to a CTSA: A Personal Perspective

Speaker: Carolyn Leung Rubin, EdD, MA:

Tufts Clinical Translational Science Institute

Dr. Leung Rubin drew upon her experience growing up as the child of Chinese immigrants. This shaped her interest in the social sciences and her university studies that included both theory and fieldwork, which emphasized experiential knowledge gained in the real world of housing projects, community meetings, and classrooms.

The patient’s mind-body interaction is influenced by the surrounding environment, beginning with the interaction with the physician, the context of the community and the culture in which they live, as well as health policy and economics. Likewise, theory and practice can inform each other.

Dr. Leung Rubin finds qualitative research attractive because of its emphasis on context, the everyday lived experience, and the incorporation of both top down and bottom up ways of understanding something. She used an example of how traditional measures of depression within the broader community might play out differently within a Chinese-American context where it might be expressed as the stomach hurting.

The Tufts University CTSA employs a collaborative approach between disciplines and strongly engages the community. Feedback from the community emphasized that collaboration is not just about building the capacity of the investigator and institution; it also is about building the capacity of community-based organizations to engage in this research. They decided to focus on addressing health disparities in persons with Hepatitis B and asthma in Chinatown, Boston.

The CTSA program can help the university focus on the role of research in society, and span disciplines within academia and the outside community in making research more engaging and relevant.

Enhancing Behavioral and Social Sciences in Medical School Education:

Experience with an OBSSR-Sponsored K07 Program

Speaker: Paul R. Marantz, MD, MPH

Einstein-Montefiore Institute for Clinical and Translational Research

Dr. Marantz shared his observation that he could identify no well-established CTSA educational programs focusing on BSS. However, some are just being initiated. A number of these were funded via ARRA mechanisms.

OBSSR has sponsored a medical school curriculum development program that provides an example focused on applied training for future physicians in BSS related to medicine. However, it does not train researchers in that field. This OBSSR program was developed in response to the 2004 Institute of Medicine report: *Improving Medical Education: Enhancing the Behavioral and Social Sciences Content of Medical School Curricula*.

It focuses on 6 major domains:

- Mind-body interactions in health and disease
- Patient behavior
- Physician role and behavior
- Physician-patient interactions
- Social and cultural issues in health care
- Health policy and economics

The OBSSR program aims to develop enhanced courses, curricula, and education designed to increase medical students' knowledge and skills in the behavioral and social sciences related to health, a limited research component, and responsibilities for dissemination of knowledge gained. It began in 2005 with nine schools that work together collaboratively. During the next funding cycle, those nine will collaborate with an additional nine medical schools.

Translational research often is so poorly defined that it is difficult to evaluate; in comparison, clinical research has been well defined and accepted for a dozen years. Dr. Marantz cited a 2010 paper in *Academic Medicine* that “attempts to use T3 to close the loop” for translational research.

Yeshiva University has created a new Institute for Public Health Services that is co-led by the School of Psychology and the School of Medicine. The cornerstone is community-based research, with a focus on the practicum. Training is for collaborative community-based research rather than investigator-initiated research. It is not a CTSA program *per se* but funding has been made available through a diversity of sources. Economic stimulus funds were used to support scholarships for a new certificate program at the Institute.

The initial enrollment of 16 was very diverse in terms of socioeconomic status as well as academic backgrounds: physicians, a dentist, PhDs, medical students, and research associates.

Looking at potential links between the CTSA's and the BSS research community, there are strong connections in community engagement, which is why the CTSA/BSS liaison will initially work through the CTSA's Community Engagement Key Function Committee and community partners. CTSA educators have identified core competencies of community-engaged research as the ability to:

- Examine the characteristics that bind people together as a community, including social ties, common perspectives or interests, and geography
- Analyze the role of community engagement as a strategy for identifying community health issues, translating health research to communities and reducing health disparities
- Summarize the principles and practices of the spectrum of community-engaged research.
- Analyze the ethical complexities of conducting community-engaged research
- Specify how cultural and linguistic competence and health literacy have an impact on the conduct of community-engaged research

These competencies will derive mutual benefit from collaboration between the Community and BSSR.

Panel Discussion

During discussion, the panelists readily acknowledged the difficulty of getting basic and clinical scientists to talk with and understand each other, let alone work together. The gaps can become even broader when extended to the behavioral and social sciences. Dr. Rubin said resistance is greater when it moves beyond a focus on the individual patient to encompass policy. There also is a growing awareness that each discipline holds the key to only a piece or two of the puzzle and that collaboration can make the clinical and translational research picture clearer.

Dr. Marantz believes that resistance has lessened over time, in part because of an increase in funding for comparative effectiveness research (CER), which requires expertise in BSSR. That gets people's attention.

Dr. Bennett said the fields of HIV and cancer research and treatment often have led the way in engaging the community to using BSS research and provided a useful model for the rest of the university. Dr. Marantz noted that his university's effort to regain its designation as a comprehensive cancer center has led to a major recruitment effort and an exciting level of activity in BSS research and community engagement.

Dr. Rubin said the community becomes alienated when researchers want to just parachute into the community, collect their data, and leave. The community wants to be involved with the research process from the very beginning, helping to choose the priorities to be studied and shaping the way the research will be conducted. Community engaged research aims to help build the community capacity to engage in these processes.

The panelists acknowledged that there still are barriers to linking BSS disciplines, which primarily are in the school of liberal arts, with medical school programs, including the CTSA. Dr. Bennett said a new undergraduate public health program in Rochester is providing more opportunities to bridge these gaps.

Dr. Bennet said some programs are effective in helping people adopt healthier behaviors but it is unclear how or why the programs work, making it difficult to apply those lessons elsewhere. This illustrates an example of the type of basic research that the CTSA could undertake.

Training in BSS will involve teaching to the needs of the student; i.e. one may need training in statistics to be able to understand such tools, but it may not be necessary to become a statistician. Such levels of expertise can be incorporated through collaboration as part of a research team.

Introduction to the Small Group Discussion: Education and Training of CTSA Investigators in the Behavioral and Social Sciences

Moderator: Paul R. Marantz, MD, MPH

Einstein-Montefiore Institute for Clinical and Translational Research

The CTSA/BSS Liaison Program has been charged with identifying the best ways to incorporate BSS into the CTSA's. The funding mechanism for the CTSA's requires that each CTSA set aside money to support clinical and translational sciences training and career development.

Behavioral and social scientists seeking training through the CTSA's to undertake translational and clinical research are likely to have diverse backgrounds and training. Some may have some clinical background and others may have no clinical training at all. Some may have limited research experience in fields other than translation.

For Question #1, Workshop Participants were asked to define the training, training goals and core competencies of the behavioral and social scientist/ clinical translational scientist. The workshop participants were asked how to best provide such training. Who are the best candidates for training?

For Question # 2, Workshop Participants were asked to address core BSS competencies within the newly defined discipline of clinical and translational sciences. Individuals from many different disciplines are being trained in the area of clinical and translational sciences. Most are unlikely to have a BSS background. Most will not become full-time BSS Researchers. However, since most research has a component of BSS, that training should be included as part of the core curriculum for the clinical and translational scientist.

Can behavioral and social sciences in clinical and translational sciences be distilled into a curriculum or series of classes so that all would be familiar with a core set of BSS principles? (E.g.: similar to requirements that all students who receive a masters in public health need to have training in statistics.... shouldn't anyone doing clinical research have some understanding of the determinants of behavior).

Dr. Marantz said, ultimately we want to distill the outcome of this afternoon discussion into a report back to the Community Engagement KFC, the Education and Career Development KFC, the Principal Investigators and the Education and Training Coordinators of the CTSA's.

Discussion Groups

Moderators: Bonnie Spring, PhD, ABPP Northwestern University Clinical and Translation Sciences Institute and Lucy Savitz, PhD, MBA University of Utah, Center for Clinical and Translational Sciences

Participants discussed both questions. Outlined below are areas where the CTSA's might focus in order to improve BSS education and career development within the Centers

Question 1: The Education, Training, and Career Development of Behavioral and Social Sciences Investigators within the CTSA Program

What are the core competencies and training required for Behavioral and Social Sciences/Clinical Translational Scientist? What are needed common areas of knowledge?

- Evidence and its translation from bench-to-bedside to community as a core trans-disciplinary framework
- Theory of behavioral and social determinants of health as the foundation for understanding the disciplinary framework and posing research questions whose answers incrementally build the evidence base
- Multi-level conceptualization of causal influences at different levels of an ecological model including: understanding of factors that foster behavior change in individuals,

and broad social and economic determinants of health in the physical, cultural, and familial environment

- Training in different research methodologies, including those involved in comparative effectiveness research. Understanding of measurement theory and instrument design. Exposure to not only randomized controlled trials, but also mixed methodologies that combine quantitative and qualitative approaches, because different kinds of questions lend themselves best to differing methodologies
- Developing a fluency in the language of different disciplines in order to understand the concepts and cultures sufficiently well to communicate across different academic languages
 - Training in databases and data sources used by different disciplines, as well as an understanding of varying approaches to publication and dissemination of results
 - Skills at collaborating in interdisciplinary teams. Perspective-taking, ability to work collaboratively, develop shared language, negotiate and resolve conflicts professionally
- Understanding of the principles, rationale, approaches, and skills involved in community-engaged research
- Training in grantsmanship: Understanding the application process, including budgeting, grant sections, formatting, timeline, and review process; Practical knowledge about grant implementation, including management of recruitment, retention, team management, and responsible and ethical conduct of research

How can the CTSA's increase and improve education and career development of behavioral and social scientists within the CTSA's

Suggestions for Curriculum and/or Learning Venues

- Web-based curricular offerings, such as team science learning modules available via the CTSA website
- Leverage resources by sharing course syllabi, materials, and other training resources among the CTSA's
- A mentored, hands-on practicum experience supervised by a mentor with possible input from peers offers an optimal context to acquire and hone practical skills towards proficiency. Skills that can benefit from mentored practice include the grant application, project management, interdisciplinary team collaboration, and community engagement processes
- BSSR in a CTSA often will find themselves in a quasi-foreign biomedical culture. Exposure to practical field knowledge can help them understand the context. Relevant information includes:
 - Understanding how medicine is practiced in the clinic – timing of the clinical encounter, patient-provider communication and workflow, records management

- including electronic health record, the roles and relationships among different health professionals
 - Performance indicators and quality of care metrics
 - Health care reform and health information technology
 - Prevention as a key but often underemphasized aspect of healthcare
- Opportunities to learn from experts can be educational and inspiring. Enhance exposure to leading “visionary” behavioral scientists who are integrated into interdisciplinary research teams. Make their stories visible via webinar and publication
- Bringing together researchers and community members in joint training programs can reduce barriers and enhance buy-in to community engaged research
- A Grand Rounds “double-header” that involves both academics and community members has been well received. The format involves a 1-hour speaker, 1-hour lunch, and 1-hour panel discussion of case studies that highlight challenging community problems, issues and dilemmas. The audience (including researchers, practitioners, and community members) is invited to help solve the cases

Logistical Suggestions

- BSSR should be forewarned that both commonality and difference exists across scientific disciplines in the kinds of questions, designs, and research methods they apply. Usually, it takes time to work through differences and evolve shared language and understandings. Fruitful dialogue often emerges from informal discussions that occur between trainees who communicate across laboratory or discipline borders
- Involvement of academic entities outside the medical school can help to create a CTSA climate friendly to interdisciplinary training and research. Engagement of the College of Arts and Sciences fosters the potential for innovative developments in basic behavioral and social sciences to be most rapidly applied to health problems
- Training mechanisms benefit from having a pool of carefully chosen, diverse mentors because of the variable kinds of expertise needed by trainees. Specific BSS research projects compatible with the KL2 mechanism may be basic, clinical, or population-oriented. In addition to longer-term mentors, there often is need for brief, short-term consultants either to resolve specific problems or to provide networking and referral to others in the institution who have needed expertise.
- The research problems identified by BSS may require placement in settings outside of traditional academic ones. For example, a community center, school, federally qualified health center, or large integrated managed care organization may offer an optimal setting to conduct the research.
- Alignment of institutional incentives is needed to encourage BSS and, indeed, all mentees to pursue interdisciplinary training opportunities available through the CTSA. Positive rewards including special funding opportunities for interdisciplinary research are important, as is removal of obstacles (e.g., discouragement of inter-departmental collaboration or multiple authorships)

Caveats

- BSS and clinical medicine are both broad fields with numerous subspecialties. It is unrealistic for the CTSA to expect to educate any one trainee deeply in all aspects of behavioral and social sciences and translational research. Training plans need to be tailored to help the mentee strengthen the knowledge and skill base that matches the individual's career goals. The trend is toward teaching some core courses within the CTSA, while allowing students to go outside to other departments for the focused expertise and training needed for their specialization
- BSSR entering CTSA training programs will already have begun to develop specialized research interests. CTSA training opportunities can be regarded as deepening the expertise that the mentee needs to address the study question, while heightening understanding of other kinds of expertise best provided by others on a multidisciplinary collaborating team
- BSSR will benefit from remembering that they are often in the minority within the CTSA. Thus, many aspects of the culture may be foreign and the number of BSS faculty available to train and mentor may be limited. Tempering those limitations, the solid research background and broad training base in BSS, position BSS research trainees uniquely well to connect with and benefit from the great diversity of research expertise and opportunities available within the CTSA
- Many medical clinicians have a poor understanding of the behavioral and social sciences until they come to understand the role of these disciplines in research. They may assume erroneously that all BSSR are practicing clinicians or that all conduct focus groups or develop new psychometric instruments. They may dismiss behavioral and social changes as unimportant outcomes, unless unaccompanied by “real” change in biomarkers or disease endpoints. They may assume that BSS knowledge is self-evident and that behavioral interventions are simple to implement. Alternatively, they may misunderstand all BSS interventions as educational – aiming solely to give advice or increase knowledge. Many of these viewpoints can be quite resistant to extinction. It is important for BSS trainees encountering them not take them personally. Culture change leading to greater appreciation of the value added by BSS approaches often proceeds gradually and often in an informal fashion

Question 2: Educating Clinical and Translational Scientists in the Behavioral and Social Sciences

What are key components of BSS that need to be incorporated into clinical and translational sciences research training and career development for non-behavioral and social scientists? What does the non-behavioral and social sciences researcher need to know about BSS?

- Importance to all clinical and translational scientists in understanding the broader research context provided by the behavioral and social sciences (e.g. sociology, culture and anthropology)
- Understanding the core language of BSS

- Understanding human behavior and behavioral change; buying into those constructs; and making them part of the study design
- The importance of multidisciplinary team approaches to successful interventions (a requirement for many NIH grant programs)
- Prevention is a key component of behavior change, sometimes the only component
- All need to understand that the framework of research, delivery of care, and reimbursement in terms of cost-effectiveness
 - The landscape is changing dramatically in the direction of integration, not isolation.
 - Messages – this can improve your clinical product
- Behavior change/adherence is an important contributor to outcomes within the health care system
- Perhaps the multidisciplinary NIH “Roadmap” will shift financial incentives and with it the paradigm toward greater inclusion of BSS; forcing clinicians outside of their “comfort zones”
- Growing consumerism: HHS is publishing ratings of hospitals and long-term care facilities; online ratings and comments on individual physicians’ performance is proliferating
- Education is not “one size fits all” therefore the group suggested that the need for education be divided into three levels or stages of learning, based upon the “need to know”
 - Awareness-raising (e.g.: Principal Investigators)
 - Multidisciplinary teams (members interacting with BSSR and learning through field work)
 - In-depth training (training in BSS)
- The need for a core set of knowledge did not emerge from the group discussion; the consensus was that core knowledge of BSS was not a replacement for the inclusion of personnel with familiarity within the field
- The group also concluded that BSS in its broadest definition could not be distilled to a core set of requirements for a curriculum: one size does not fit all. Rather than thinking of a core curriculum, each proposed project should be evaluated within the context of the needs of behavioral and social sciences

How do we enhance the status of BSS as a component of clinical and translational sciences and academic medical centers? How do we address the marginalization of BSS?

- Creating Awareness (newsletters, publications, grand rounds, community involvement)

- Developing Networks for BSSR to communicate across multiple institutions; reducing the isolation of BSS
- Being prepared for paradigm shift which values BSS (health care reform)
- Penalizing research that does not take full advantage of a multi-disciplinary approach
- Serving in a consultancy role
- Providing services through short term consultations
- Demonstrated interest on the part of NIH for the inclusion of behavioral and social sciences research with associated funding opportunities (e.g., similar to the inclusion of statisticians and epidemiologists in research proposals)
- Increasing the interest and funding for students and junior faculty since they have already showed an interest in doing this research
- Develop multi-disciplinary team approaches to work with the community where knowledge can be shared
- Develop teams that include community peer educators, public health students and clinical investigators; try to get the research team to hire a “navigator” for working within the community
- Identifying senior mentors

Caveats

- IRB involvement: Consensus was that it would probably become just another box to check off rather than a meaningful review of a behavioral component of a study
- Health care reform is going to drive translational research, but the details have yet to be determined
- Success will occur when researchers come to realize what they need to know rather than through additional coursework
- There is a strong component of BSS in community engagement; however, BSS and community engagement are not synonymous.

Reporting Back: Summarizing Priorities and Next Steps

After the breakout sessions, the attendees reconvened to consider next steps or recommendations to the CTSA.

A participant noted that one of the original charges to the CTSA was to change the culture of academic health centers. She suggested NIH or the CTSA's evaluate whether this goal has been achieved. Another suggested looking at the interdisciplinary composition of individual CTSA's. After five years of existence, the CTSA program is ripe for such an evaluation.

Dr. Marantz reported that his institution had recently completed a review of KL2 applications. He was surprised that the top scorers were engaged in research that could be considered BSS research. Physician investigators were working in a team that included appropriate mentoring to support their BSS career development. He thought it might be indicative of a culture change; other attendees reported similar experiences in their CTSA's.

The final report from this meeting will be disseminated to other interested parties within the CTSA's. Members of both the Community Engagement and Education and Career Development Key Function Committees will receive a briefing. The report will be posted on the Wiki.

Many of the participants suggested the need for a continuing presence within the CTSA's of the CTSA/BSS Liaison Program. They suggested that BSS would only be successful and receive the necessary recognition if adequately funded and supported.

Future discussions will broaden to include additional aspects of BSS beyond education and training. These topics might include research in basic BSS research and on the reciprocal nature of BSS and community engagement.

Meeting Summary

This half-day Workshop was the first activity of the CTSA/BSS LP. The purpose of the LP is to facilitate the integration of BSS into the CTSA program. The results from the Workshop discussion will provide assistance to NCRR, OBSSR and NIH in the development of ideas that can promote and enhance the education and training of behavioral and social scientists and clinical and translational scientists within the CTSA.

The role of education and career development, and community engagement within the CTSA within the context of key functions was discussed. The CTSA educational component includes one or more graduate degree granting and postgraduate programs in clinical and translational sciences that includes a knowledge base for clinical and translational researchers irrespective of their primary interest, degree, or discipline. These components are: the TL1 (similar to the T32 institutional training grant mechanism), an optional component which most centers have chosen to implement; and the KL2, a mandatory component that provides career development support for junior faculty to pursue education and mentored research training.

OBSSR and the CTSA program overlap in numerous ways. OBSSR supports the translation of basic BSS into effective interventions to improve health (“Translation 1”), as well as using findings from BSS to inform the translation of efficacious biomedical interventions into clinical practice (“Translation 2”). Almost all biomedical interventions have behavioral and social components to them.

OBSSR is housed in the Office of the Director of the NIH. OBSSR’s mission is the stimulation of BSS research throughout NIH so that these sciences may more fully integrate into all research activities. The current research priorities of OBSSR are: next generation basic behavioral and social sciences research; interdisciplinary research; systems-thinking approaches to health; and population impact.

Panel presenters described existing models for education, training, and career development within the CTSA. The role of the social scientist within the CTSA was also discussed. Participants discussed existing and potential resources within the CTSA and OBSSR.

Two questions were discussed during the small group discussions: training BSS in the translational sciences and training translational scientists in BSS.

Participants suggested curriculum changes and other alternative approaches to incorporate BSS training into the CTSA. Some of the overarching themes of this discussion included: the limited number of senior level BSSR available to both mentor and consult within the CTSA; the lack of onsite BSS expertise available to academic medical centers; and the challenges of isolation of BSSR within the context of the academic health center. Participants cautioned that BSS is a broad field, thus a multi-disciplinary team approach, with personnel trained in a variety of disciplines would be more useful for the CTSA than a curriculum in BSS for translational scientists.

Many of the participants expressed the view that BSS needs to be a continuing presence within the CTSA such that BSS would be funded and receive the necessary recognition to allow it to develop within the CTSA. NIH could do much to further that goal.

Acknowledgements

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