“Barriers to Transdisciplinary Research and Dissemination: Why Don’t We Play Nicely Together?”

Academic institutions, government agencies, and private-sector organizations increasingly focus on the need for collaborations between researchers in disparate fields. These transdisciplinary research collaborations are critical for the translation of research findings into “real world” applications and for the dissemination of these applications to broad audiences. Enhancing the quality of research collaborations, improving access to those collaborations, and increasing transdisciplinary research competencies are important goals for advancing science, engineering, and policy development.

However, there are frequently institutional and individuals barriers that hinder such collaborations. These barriers include differences in contextual factors such as the preferred work environment and organizational structure; interactive processes including communications and coordination; and overarching issues such as acceptance, trust, and conflict management. The “science of team science” has evolved as a new field of research to study these barriers and explore potential solutions to facilitate collaborations. A broad group of investigators has focused on this field for almost a decade, developing both questionnaires to evaluate barriers to collaborations and programs to address these barriers.

As part of a comprehensive evaluation of an NIH-funded research center, we conducted a survey assessing self-reported barriers to transdisciplinary research collaborations; competencies for research collaborations; and views about the quality of collaborations among a group of biomedical, social science, and engineering researchers. Survey respondents were primarily Ph.D. or M.D. investigators with an average of 10 years of research experience; 65% currently collaborated outside of their own discipline. Barriers to research collaborations focused on information/time overload and communication issues; the most important barrier to collaboration was “lack of time necessary to communicate effectively.”

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Self-assessed research competencies clustered around 1) appreciating other disciplines, 2) participating in collaborative activities, 3) producing interdisciplinary research products, 4) interdisciplinary integration into one’s own research, and 5) drafting interdisciplinary proposals. Respondents indicated most confidence in their ability to “Express respect for the perspective of other disciplines” and least confidence in their ability to “Draft funding proposals for interdisciplinary research programs”. Perceptions of the quality of collaborations were grouped in three areas: satisfaction with collaboration; trust and acceptance in the collaborative context; and collaboration impact.

Although these responses were provided by a small sample of researchers at a single research center, they provide insight into the challenges faced in developing and maintaining collaborations among individuals from multiple disciplines. We plan to use these findings as the starting point for a participatory discussion with attendees at this session, to explore possible strategies for supporting and improving collaborations in diverse research and policy settings.

Biography

Michael Halpern is a Senior Fellow in the Division of Social Policy, Health, and Economics Research of RTI International, based in Washington DC. Dr. Halpern received his MD and PhD in the Medical Scientist Training Program at The University of Michigan and an MPH in epidemiology also at The University of Michigan. In addition to examining barriers and facilitators to transdisciplinary research collaborations, his work focuses on health services and outcomes research, including assessing patterns of medical care, comparative effectiveness and cost-effectiveness, access to care, and disparities. Research by Dr. Halpern includes evaluation of patient outcomes and medical treatment patterns; development and analysis of patient, caregiver, and health care provider surveys; assessments of patient symptoms, satisfaction, and quality of life; and examinations of factors influencing decision making by patients, physicians, and health care researchers.