

April 25, 2007 CSR Behavioral and Social Science Open House Breakout Groups - Report Out Summary

The substantive focus of the April 25, 2007 CSR Behavioral and Social Science Open House was the breakout groups. These groups provided a forum for external participants to respond to two science-focused questions. Each breakout group was led by a Study Section chair and a Professional Society representative who co-facilitated the group as two Scientific Review Administrators (SRAs) recorded the discussion. At the conclusion of the breakout groups, participants reconvened in the auditorium, where each group reported the top three consensus issues listed below. Post-meeting comments regarding these report-out issues can be e-mailed to CSRBSSRoh@csr.nih.gov. The post-meeting comment period will close on June 11, 2007.

Question 1:

Is the science of your discipline, in its present state, appropriately evaluated within the current study section alignment?

Basic Behavioral Science 1

1. The areas of science, e.g., pain, sleep, that cut across several study section domains may not be appropriately evaluated. If most of the panels' expertise is not in an area, the perception is that an application tends to fare more poorly. Can data be collected on this?
2. Breadth versus depth on study section is a concern. Some suggestions:
 - A. Need reviewers who are well versed in multidisciplinary research; study sections have not caught up with transdisciplinary emphasis.
 - B. Want reviewers with specific expertise and an appreciation for the broad picture and context.
 - C. Need Standing Special Emphasis Panels (SEP) where panel members have expertise in specific areas of content, but few if any, have expertise in the general area.

Basic Behavioral Science 2

1. There is a need to maintain foundational research approaches in the behavioral and social sciences.
2. The following areas are under-represented: neuropsychology, I/O, psychology, PNI, and treatment science. Continued representation is needed in social psychology, sociology, learning and cognition, anthropology, and early development.
3. The level of review should encompass breadth and theoretical representation.

4. There appears to be a gap in review of new theories, tools, and methodologies. Reviewers need an interdisciplinary perspective.

Epidemiology and Biostatistics

1. Research is being well reviewed in general. There is a need for additional expertise in social/psychological/cultural research issues, for example, in alcohol research.
2. The review of interdisciplinary research is a challenge. Sufficient numbers of reviewers are needed to cover all substantive and technical areas.
3. Reviewing innovative research is a special challenge.

Health Services and Demography

1. Diverse expertise on study sections is needed for effective review. Specific suggestions:
 - A. Balance between breadth/diversity versus depth.
 - B. Interdisciplinary dialogue critical.
 - C. Ensure adequate coverage of significance, innovation, methods, data.
2. Study sections should be populated to better represent the intended scientific focus stated in study section descriptions. For example, the social sciences are not adequately represented in AIDS study sections. There is a need for population-related social scientists and health economists.
3. Interdisciplinary, mixed method, translational research is vulnerable to inadequate review, e.g., reviewers expect perfection.

Risk, Intervention, Prevention – Small Group

1. Overall, the system works well but some types of applications do not have adequate coverage in study sections. This results in inappropriate review. Examples include behavioral psychopharmacology (human), sleep, pain, developmental research, qualitative research, and behavioral interventions.
2. Several disciplines may be insufficiently represented on study sections. Concern was expressed about social work, emergency medicine, and toxicology.
3. Multidisciplinary research presents review challenges that require ongoing, continuous efforts to recruit and retain multidiscipline-oriented reviewers, in terms of both content and perspective.

Risk, Intervention, Prevention – Large Group

1. Advances in research and analytic methods are needed. Study sections are too often wedded to a single approach or design. Reviewers need to have a breadth of expertise in varied research methodologies to evaluate cutting edge applications.
2. Gaps in study section expertise are: translation, dissemination, sustainability, neurobiological, systems, health informatics, eHealth, lifestyle issues, genomics, and international research.
3. Human behavior is complex and dynamic. Changing any health-related behavior can be very challenging. The involvement of other disciplines is needed, e.g., economics, environmental science, architecture, law and health policy, all have impacts on behavior.

Question 2:

What will be the most important questions and/or enabling technologies you see forthcoming within the science of your discipline in the next 10 years?

Basic Behavioral Science 1

1. Genetics and Behavior: genomics, personalized medicine, candidate genes, gene x environment interactions, phenotyping, and animal models.
2. Computational models connecting behavioral science and neuroscience.
3. Role of built environment, e.g., effect of toxins on behavior and health.
4. Emphasis on symptom management in addition to cure or prevention, e.g., aging, obesity, autism.
5. Impact of non-neurological physiology on behavior, e.g., infectious diseases and inflammation processes.

Basic Behavioral Science 2

1. Measurement: dynamic sampling, automated measures, incorporation of biological variables, moving lab technologies into field, early detection and intervention, use of consumer devices (GPS, PDAs), remote sensing, virtual reality.
2. Data management: mixed statistical methods and designs, database access, shared or large datasets, dissemination, informatics, archiving data, ethical implications of data collection.
3. Translation: cost effectiveness of behavioral interventions, changing demography, functional significance of neurobiological findings, e.g., animal models and neuroimaging.

Epidemiology and Biostatistics

1. Data methods for merging and analyzing data from a variety of data sources.
 - A. Integration of fine scale data and large scale population data.
 - B. Developing and implementing data mining techniques.
 - C. Design of complex surveillance, intervention, longitudinal studies.
2. Development of measurements outside the clinic.
3. Data sharing and its practical and ethical consequences. There is a challenge of getting valid information from the population while maintaining confidentiality.
4. Replication and validation studies are necessary.

Health Services and Demography

1. Technology:
 - A. Measures: Biomarkers including genetics, electronic records, GIS, and merged data.
 - B. Bioethics/human subjects concerns.
 - C. Data collection methods such as real time, natural context, e.g., GPS, wearable devices, computer analysis of text.
2. Methods:
 - A. Integrated data (multilevel).
 - B. Simulation/computational methods.
 - C. Community participation in research.
3. Substantive:
 - A. Addressing population trends, e.g., migration and health, population aging.
 - B. Integration of micro/macro, e.g., how individual concepts, theories, methods, findings scale up to community/population level.
 - C. Scientific integration/translating social science into a policy/clinical environment and vice versa.

Risk, Intervention, Prevention, Small Group

1. Community based participatory research.
2. Use of new technologies: in vivo assessment of individuals, small assay analysis, communication technology, technology for data collection, technology for extant database analysis using new methods, e.g., data mining, functional neuro-imaging.

3. Environment-gene interplay, e.g., biological, social, neighborhood, organization, community; epigenetics; biological markers as risk factors with a psychological intervention; interdisciplinary topics.
4. Dissemination science – the science of scaling up.

Risk, Intervention, Prevention, Large Group

1. How can alternative methodologies be advanced and adopted more readily in social and behavioral sciences, e.g., contextually relevant approaches, community participatory research, real time analysis, mixed methods, ethnography?
2. How can new technologies be incorporated? e.g., GIS, mixed methods to gather data on real world behavior in real time.
3. How can we foster further scientific collaborations with relevant scientific disciplines, e.g., economics, ethics, genomics, consumer health informatics, policy analysis, political science?

Conclusion

The Center for Scientific Review will carefully review these comments and suggestions and will consider appropriate steps to address concerns. For example, CSR plans to address the challenges facing review of translational and multidisciplinary applications. To ensure stakeholder participation and broad perspective, results from Open House deliberation will be presented to the NIH Peer Review Advisory Committee (PRAC) for its consideration before changes are implemented.

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