Collaborative Research

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Presentation Outline

• Forms of Collaboration in Health Research
• Mechanisms & Modalities of Collaborative Research
• Benefits of Collaborative Research & Impact on RCR
• Specific Ethical Concerns in Collaborative Research
• Guiding Ethical Principles
Collaboration in Health Research

• The term "collaboration" in academic research is usually thought to mean an equal partnership between two academic faculty members who are pursuing mutually interesting and beneficial research.

• Many collaborations involve researchers of differing stature, funding status, and types of organizations.

• For scientists working in classified areas, collaboration with university programs and researchers provides opportunities to expand their career and strengthen their science through the conduct of peer-reviewed, open literature research.
COVID-19: Collaboration is the engine of global science – especially for developing countries

Pathogens and epidemics do not respect borders; solutions to combat these can only be found through global research cooperation and open exchange.
Forms of Research Collaboration

- Collaboration within the institution
- Collaboration with private sector/industry
- Collaboration with other institution
- Collaboration based on task expertise
- International Research Collaboration
Why Research Collaboration?

No single person has the **skills, knowledge, and resources** to address all research problems.
Mechanisms & Modalities

• Researchers increasingly collaborate with colleagues who have the **expertise and/or resources** needed to carry out a particular project.

• Collaborations can be as **simple** as one researcher sharing reagents or techniques with another researcher.

• They can be as **complex** as multi-centered clinical trials that involve academic research centers, private hospitals, and for profit companies studying thousands of patients in different states or even countries.
Additional Responsibilities

• These additional responsibilities arise from the *added burdens* of:

  • *The increasingly complex roles and relationships*
  
  • *Common but not necessarily identical interests*
  
  • *Management requirements*
  
  • *Cultural differences*
Sharing

• Collaborators should share *findings* with colleagues in the collaboration and pay attention to what others are doing;

• Report and discuss *problems* as well as findings;

• Make other collaborators aware of any *important changes*;

• Share related *news and development*;

• Should come to a mutual understanding about their *roles and responsibilities* in the planning, conduct and dissemination of research.
Demand for Expanded Capacity

Collaboration can - facilitate conducting research with A GRANDER SCOPE

- invite experts from diverse yet relevant disciplines
- handle larger number of study subjects
- permit research to be conducted at disparate locations either at a national or international level
- Some research questions can only be addressed in this manner
Management Plans

Collaborative projects should have **effective management plans**

- Financial Issues
- Formal Agreements
- Training & Supervision
- Compliance
Benefits of Collaborative Research

- Promoting multiple *views, ideas and thinking*
- Access to *specialized research facilities* not available at home institution or country
- *Leverage funding* from multiple national funding sources
Impact on RCR

**Potential RCR issues** found in all types and formats

- breakdown of communications
- unexplained deviation from protocol
- uncooperative partners
- failure to resolve disagreements or barriers
- failure to honor responsibilities to other researchers
- taking advantage of a disparity in power
- inadequate supervision and monitoring
Specific Ethical Concerns

1. Authorship & Credit
2. Research Accountability
3. Intellectual Property
4. Use of Data
5. Data Retention & Preservation
6. Agreements
Authorship & Credit

• When will the results be presented and/or published?
• Who will be included as authors?
• What will be the order of coauthors?
• Who will have the final authority to approve presentations or publications?

Fair Distribution Of Authorship & Credit
Research Accountability

• What type of access will members of the collaborative research to each other’s original data?

• How frequently will the members of the collaboration meet to discuss and evaluate their results?
Intellectual property

- Rights to patentable interventions in the conduct of research
- Copyrights
Use of Data

- Data are traditionally **owned** by the institution and/or researcher developing or collecting them.
- Collaborative institutions need to ensure that their researchers have **access** to these data.
- Some limited use of data due to **proprietary reasons**.
- Data sharing is essential to the submission of **future grant** applications and the **publication** of scholarly work.


Data Retention & Preservation

- Once project information and data are collected, analyzed and reported, it is vital that they be maintained after the project closes.

- Data should be retained to permit verification of the research results and the record of inventions and inventorship, as well as to provide background data for future research.

- Agreements covering data retention may include destruction of the materials or the return of materials to the providing party at the end of a project.
Agreements

- Facility use agreement
- Intellectual property agreements
- Data sharing agreement
- Material transfer agreement
- Liability for damages
- Consultation agreement
Exploitation Risks

• ‘Helicopter research’ by Northern partners: No knowledge transfer or capacity building/strengthening

• Research priorities mismatch to local needs

• When the research is designed to benefit people in other countries or settings and the individuals who contributed to the study never get a chance to benefit from it.

• Poor representation of LMIC (host) partners on research teams:
  - Responsible for menial tasks only
  - Not acknowledged or represented appropriately in publications
Guiding Ethical Principles

• Addressing issues on data ownership, authorship issues

• Promoting practice on ethical data sharing: Value of data sharing, Minimizing harm, Promoting fairness and reciprocity, Trust

• Not using de-identified data to prevent stigmatization of identifiable communities, populations, and even countries.

• Promoting capacity building as a priority

• There must be bilateral/multilateral free flow of knowledge and capacity.
References


- Steneck NH. Introduction to the responsible conduct of research. Revised Edition. August 2007. Office of Research Integrity. NIH. USA


Take Home Message

“Researchers Should Work In Collaboration, Rather Than In Isolation”

**Abstract**

**Background:** Integrated knowledge translation describes the process of partnered research between different stakeholders with the goal of producing research that ultimately achieves a greater impact when put into practice. A better understanding of research partnerships and integrated knowledge translation has implications for future partnerships and collaborative initiatives in practice. Our research draws upon previous work done to identify barriers and attitudes toward collaboration in the context of research funding opportunities that required researcher-knowledge-user partnerships.

**Methods:** A survey was sent out to researchers funded by the Canadian Institutes of Health Research and knowledge-users who worked collaboratively on their research projects. There were two minor versions of the survey, one for researchers and one for knowledge-users. Descriptive statistics, $t^2$ analysis and Mann–Whitney U analysis were used to understand the processes, barriers, perceived impact and sustainability of the partnerships.

**Results:** The results revealed that, although there were differences in the roles of researchers and knowledge-users, both groups felt very positive towards their partnerships. Some of the barriers identified as inhibiting effective partnerships were resource constraints (funding/time) and differences in contribution and involvement amongst team members. Despite these barriers, both researchers and knowledge-users felt that the partnership was not only sustainable, but also helped create an impact.

**Conclusions:** Our results provide useful information for funding agencies in launching opportunities requiring or encouraging collaborative research projects between researchers and knowledge-users.

**Keywords:** Integrated knowledge translation, funded research, grants, partnerships

**Collaborative health research partnerships: a survey of researcher and knowledge-user attitudes and perceptions**

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Group Work: Case Studies

Case Study (1) ICT and Mobile Data for Health Research
• Researchers’ perspectives
• IRB/ERC perspectives

Case Study (2) An International Collaborative Genetic Research Project
• Key ethical issues
• Protection of violations of research ethics
Thank You