Types of Research and Research Design

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Research

- Step into the unknown...
- Process of discovering new knowledge
- Attempt to advance current information

Fed definition of research with people:
- “A systematic investigation designed to develop or contribute to generalizable knowledge”
The scientific method

Hypothesis:
Informed and educated prediction or explanation about something
Research design

- Kind of like a recipe
- In a study, we call it a ‘research protocol’
- Research design is the glue that holds the project in place
- Sets up the research, shows how all parts work together to address the question under study
- Depends on the type of question, population, resources, time, etc.
Types of research - I

- Qualitative
  - Looking at issues that are difficult or impossible to express through numbers
  - Look at *why* and *how* of decision making
  - For example, beliefs, meanings, attitudes, etc.
  - Observations, interviews, stories, documents, reports, case study, etc.
  - PRO: we can study complex experiences
  - CON: open to interpretation
Types of research - II

- Quantitative
  - Looking at issues by systematic investigation using numbers and mathematical models
  - Look at *what, where, and when*
  - Experiments, quasi-experiments, correlational, etc.
  - PRO: we can measure things and analyze data
  - CON: large numbers needed and often not done in ‘natural settings’

- Because neither is perfect, researchers often try to mix elements of both
Rules and regulations

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Reasons

- History of research ethics abuses
- Risk of harm
- Difficulty of understanding research protocols
- Undue inducement
- Risk of exploitation
- Dependence of public trust
- Professional ethics for researchers
- Uncertainty
Institutional Review Boards - IRB

- Independent group of people established to approve and review research involving human subjects
- Required for all research where UCR faculty are involved
- Has community members – non-scientists, unaffiliated to UCR – as well as researchers
- IRB facilitates ethical research and ensures that risks are minimized
IRBs

- Research is conducted in accordance with federal, institutional and ethical guidelines
- Researchers may not begin until they have approval
- Any change must have prior IRB approval
- Can take anywhere from 2 - 6 weeks on average depending on complexity
- Complaints regarding research can be submitted to the IRB
When can an IRB approve?

- Good research design
- No unnecessary risks
- Risks are reasonable
- Selection is equitable
- Informed consent obtained & documented
- Privacy and confidentiality protected
- Other approvals may be necessary
  - Funding, grants & contracts, biosafety, conflict of interest, etc.
IRB limits

- Only review “human subjects research” as defined in the regulations
- Do not have oversight over:
  - Mentoring
  - Publication
  - Research misconduct
  - Findings
  - Program evaluation, quality improvement, and everything else outside of that definition
More than meets the IRB...
Ethical considerations*

1st - What is a ‘community’?

- Confidentiality in communities
- Managing multiple roles/boundaries
- Learning about sensitive topics
- Recruitment
Confidentiality

- Challenges and limits to maintaining confidentiality
- Data collection, analysis and dissemination
- When community members are named
Managing multiple roles / boundaries

› Identify and discuss forms of power within the team, between the team and the community and with the CBO

› Regular meetings to outline the roles, possible conflicts, and strategies for managing these

› It’s important to maintain roles and boundaries (‘hats’)
Sensitive topics

- Support for participants following disclosure of sensitive or illegal information
- Protecting the wellbeing of participants and communities
- Working with the IRB to develop strategies to protect sensitive data
- Framing sensitive research findings
Recruitment

- Developing effective inclusion and exclusion
- Recruiting through organizations and service providers
- Ethical issues when recruiting through peers
- What are effective recruitment materials and strategies
Additional resources

- UCR ORI website:
  - [http://research.ucr.edu/ORI.aspx](http://research.ucr.edu/ORI.aspx)
- Research participant/subject resource – more info on IRBs and research in general (Not community-engagement specific)
- Two IRBs at UCR – IRB-SB & IRB-Clin
- drugsCBRethics.com – Resource for those who use drugs and are part of CBPR
- Search ‘Protecting Human Research Participants’ – free tutorial online