IRB Standards for Biomedical and Social Behavioral Research… what is the difference?!

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Northwestern | RESEARCH

Outline

- Social-Behavioral vs. Biomedical Research
- Timeline & History of Human Research Ethics
- Human Research Regulations
- Northwestern University's Human Research Protections Program (HRPP)
- Applicability: Regulations, Policies, and Best Practices
- Key Considerations when Developing Research Protocols
- Conducting Compliant Research
- Resources

Social-Behavioral vs. Biomedical Research

Biomedical:

- Studies of mechanisms of human disease; Studies of therapies or interventions for disease; Studies to develop new technology related to disease
- Physical activity, venipuncture, x-rays, blood or other specimen collection, physiological statistics

Social Behavioral:

- Studies of human attitudes, beliefs, and behaviors
- Data collection methods include observation, questionnaires, interviews, focus groups, non-invasive physical measurements
- Outcomes and health services research

Institutional Review Boards and Researchers are both tasked with identifying and evaluating risks of harm to participation in research and protecting human participants.

Timeline & History of Human Research Ethics: Past Research Mistreatments

Biomedical:

- Nuremberg Trials
- Tuskegee Syphilis Study
- Jesse Gelsinger
- Human Radiation Experiments

Social Behavioral:

- Milgram Obedience Study
- Stanford Prison Experiment
- Tea Room Trade Study
- Havasupai Tribe
- French Documentary Show

Timeline & History of Research Ethics: **Nuremberg Trials (1945-1949)**

Human Experimentation

- Wide range of experiments on concentration camp prisoners without their **consent**.

Nuremberg Code (1947):

- Voluntary **informed consent** absolutely essential
- Research should yield useful **results**
- Base research on **prior work**
- **Avoid unnecessary** physical and mental suffering
- **No expectation of death** or disabling injury
- **Risk must be outweighed** by importance/benefits
- Subjects must be **protected from injury**
- **Qualified** scientists, adequate facilities
- Subject **free** to stop at any time
- Investigator must be ready to **withdraw** subject

Milgram Obedience Study (1961-1962) French Documentary Show (2010)

Milgram Obedience Study

- Series of social psychology experiments to see how far obedience will go
- Measured the willingness of study participants to obey an authority figure instructing them to perform acts conflicting with their personal conscience
- 60 percent of participants were prepared to inflict fatal voltages.
- Extreme emotional stress and inflicted insight suffered by the participants.

French Documentary Show: Game of Death (2010)

- French version of Milgram's use of authority
- Manipulative power of live television further increased people's willingness to obey
- Increased percentage of participants willing to shock the "subject"
- Issues:
  - Deception
  - Right to withdraw
  - Undue Influence

Timeline & History of Research Ethics: **Tearoom Trade Study (1960s)**

- Researcher observed MSM in public restrooms
- Concealed identity as a researcher
- Documented data on: locations, frequency of acts, the age of parties involved, roles, and whether money changed hands
- Visited to men's homes pretending to be conducting general health study

- Issues:
  - Informed Consent
  - Deception used to collect data
  - Privacy/ Confidentiality
  - Potential for legal, emotional, professional, or economic harm

Timeline & History of Research Ethics: **Declaration of Helsinki (1964)**

- Set of ethical principles regarding human experimentation for the medical community developed by the World Medical Association (WMA).
- Widely regarded as cornerstone document of human research ethics
- Follows the Nuremberg Code
- Emphasizes that the well-being of the human participant should take precedence over the interests of science and society

Timeline & History of Research Ethics: **Stanford Prison Experiment (1971)**

- A social psychology experiment to investigate the psychological effects of perceived power
- 24 students randomly assigned to be either prisoners or guards
- "Guards" instructed to exert psychological control over the "Prisoners"
- Supposed to run for 2 weeks: was stopped after 6 days
- Issues:
  - Withdrawal
  - Debriefing
  - Potential benefit to science must outweigh the possible risk for physical **and** psychological harm

Timeline & History of Research Ethics: **Cold War Medical Experiments (1944-1980s)**

- Federally-funded research on the effects of radiation on human beings
- Subjects were not told that they were participating in the experiments
- People were injected with plutonium by Manhattan project doctors.
- Likely that the subjects were not made aware of the nature of the injections they received
- Other research conducted on cancer patients, pregnant women, prisoners, students, military personnel
- Issues:
  - Informed Consent (& parental permission)
  - Documentation of Consent
  - Vulnerable populations
  - Sound scientific design
  - Do no harm

Timeline & History of Research Ethics: **Tuskegee Syphilis Study (1932-1972)**

- Study: Natural progression of syphilis
- Target population: low income black men
- Did not inform the men if they tested positive for syphilis nor that they would never get treatment (even though treatment available)
- The men received free medical exams, free meals
- Study ended only when exposed by national media.
- Failure to report new information that may change the willingness of participant to continue on study

- Issues:
  - Equitable Selection
  - Deception
  - Undue influence
  - Informed Consent
  - Return of Research Results
  - Potential benefit must outweigh the possible risk
  - New information withheld

Timeline & History of Research Ethics: **National Research Act (1974)**

- Established the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research
  - Identified basic ethical principles that should underlie the conduct of biomedical and behavioral research involving human subjects in **The Belmont Report**
  - Developed the **"Common Rule"** framework to assure that research will be conducted in accordance with ethical principles
  - Required institutions to establish **Institutional Review Boards (IRBs)** to protect human subject participants in research

Timeline & History of Research Ethics: **Belmont Report (1979)**

- Respect for Persons
- Beneficence
- Justice

Belmont Report (1979)

Respect for Persons

- Individuals should be treated as autonomous agents
- Persons with diminished autonomy are entitled to protection

In Action

- Obtain informed consent
- Ensure comprehension & voluntariness
- Protect privacy and confidentiality
- Inform the participant of all significant new findings during the study that might affect their willingness to continue participation

Belmont Report (1979)

Beneficence

- Do no harm
- Maximize possible benefits
- Minimize possible harms

In Action

- Study design
- Risk/benefit analysis
- Qualified investigators

Belmont Report (1979)

Justice

- Treat persons fairly
- Benefits and burdens be distributed fairly

In Action

- Selection of subjects is equitable
- No population is exploited

Inupiat Community, Barrow, Alaska (1979) & Havasupai Tribe (1990s)

Inupiat Community, Barrow, Alaska

- Native leaders worried about drinking and associated violence & accidental deaths in their community
- Survey of alcohol use among the Inupiat community
- No findings shared with the community


Alcohol Plagues Eskimos

Havasupai Tribe, Grand Canyon, Arizona

- Concern over high rates of type II diabetes
- University of Arizona researcher collected blood samples from tribe members for purpose of studying type II diabetes
- Researcher also used samples to study schizophrenia
- Shared samples with other researchers
- No findings shared with community

- Issues:
  - Privacy violated & stigmatization
  - No input from the community
  - Informed Consent
    - Future use of research samples
    - Data sharing
  - Return of study results

History of Research Ethics: **The Death of Jesse Gelsinger (1999)**

- Gene therapy trial for rare metabolic disorder OTCD
- Safety study, above minimal risk without prospect for individual benefit
- Problems in oversight of gene-therapy experiments and human research
- Issues:
  - Inclusion/exclusion criteria
  - Failure to disclose pre-clinical information
  - Failure to disclose/document Conflict of Interest of investigators
  - Failure in reporting of serious adverse events

Human Research Regulations "Common Rule" (1981)

- 45 CFR 46 (Code of Federal Regulations)
- Department of Health and Human Services (HHS)
- Federal policy for protection of human subjects
- Human subjects research must have prior IRB approval
- Researchers must obtain and document informed consent
- Outlines additional protection for certain vulnerable populations
  - Subparts
    - A: Common Rule
    - B: Pregnant women, fetuses, neonates
    - C: Prisoners
    - D: Children

Northwestern University HRPP

Human Research Protection Program (HRPP)

- Established to comply with the ethical and legal requirements for the conduct and oversight of human research
- University Policies
- **Northwestern's Office for the Institutional Review Board (IRB Office)**
  - Works with the IRB and other University units (SR, COI, Research Safety, etc.) to ensure HRPP compliance
  - Operates under an FWA: Assurance to the federal government that binds institutions to uphold ethical and regulatory requirements

Applicability: Regulations, Policies, and Best Practices

- **All** Human Research at Northwestern University (whether biomedical or social-behavioral) must adhere to:
  - Ethical Principles
  - Northwestern University HRPP
  - Northwestern IRB Office policies, SOPs,
  - Other institutional Policies and Procedures relevant to human research
  - Human Participant Training Requirements
  - PI Responsibilities
  - Informed Consent & HIPAA (when applicable)
  - Data and Participant Safety
  - Research Records and Retention policies
  - Post-Approval Monitoring

Applicability: Regulations, Policies, and Best Practices

- Is **not** dependent on whether the research is Biomedical or Social Behavioral
- Applicability depends on:
  - **Funding**
    - Federally funded = Federal Regulations (Common Rule), Single IRB Mandate
    - NIH Funded = NIH Single IRB Policy, additional NIH Policies
  - **Procedures** involved:
    - IND/IDE = FDA 21CFR 50
    - Clinical Trial = ClinicalTrials.gov, ICH GCP, etc.
  - **Population/Setting** involved:
    - Vulnerable populations: additional regulatory protections apply to: children, pregnant persons, and the fetus, and prisoners.
    - Other groups need additional protections such as adults with diminished capacity.
    - Research taking place in Schools = FERPA, PPRA, DOE, etc.
    - Research involving European Economic Area = GDPR

Applicability: Regulations, Policies, and Best Practices

- ALL Northwestern University research community members are responsible for upholding the highest standards of ethical conduct as defined in University policies, procedures and guidelines, and sponsoring agency policies and regulations.
- AAHRPP: The **A**ssociation for the **A**ccreditation of **H**uman **R**esearch **P**rotection **P**rograms
  - Voluntary, peer-driven, educational model to ensure HRPP meets rigorous standards for quality and protection
  - AAHRPP accreditation is the "gold standard" of quality for IRBs
  - The Northwestern IRB received initial accreditation on December 19, 2016. Re-accreditation was received on December 16, 2019.
- Diversity, Equity, and Inclusion considerations
  - FAIR (Fostering Accessibility and Inclusivity in Research) Committee

Key Considerations when Developing Research Protocols

- Minimizing Risk:
  - Scientific Merit and Sound Study Design
  - Factors that impact risk:
    - procedure (possible harms)
    - person performing the procedure (training, experience, skill)
    - setting (privacy protections, availability of resuscitation equipment, etc.)
    - characteristics of the research participant (age, health status).
- Setting/Population: Equitable Selection
  - Consider purposes of the research and the setting in which the research will be conducted
  - No group should be unduly burdened or will unfairly benefit from the research
  - Vulnerable populations require additional protections
  - Situational vulnerabilities
  - Employees or students vulnerable to (both real and perceived) coercion and undue influence

Key Considerations when Developing Research Protocols

- Protocol Procedures
  - Clear, well-written protocol
  - Review of the literature
  - Training/qualifications of research staff
- Protection of Privacy & Maintenance Confidentiality
  - Tailor to nature of study & risks involved
  - Consider method/setting for approaching participants
  - Which security measures are is sufficient to adequately protect the subjects given the inherent sensitivity of the data
  - Limit access to the information to those who need to know, provide a plan to destroy links/identifiers
  - Each study should develop a thoughtful plan ach that takes into account the nature of the research and inherent risks to the participants

Key Considerations when Developing Research Protocols

- Informed Consent and Documentation
  - Consent is an ongoing process!
  - Documentation protects participants' rights and ensures a thorough process
  - Write for your audience
- Data Safety Monitoring
  - Plan for monitoring the progress of the study and the safety and welfare of participants
  - Ensuring the accuracy, integrity and security of the emerging data
  - Prompt reporting of reportable events
  - Ensuring compliance with the reporting requirements for reportable events
  - Plans for ensuring that any temporary or permanent suspension of the research will be reported to the IRB
  - Plans for ensuring the accuracy and security of the collected data and compliance with the IRB-approved protocol

Resources & Guidance

Protocol Templates & Forms

Consent Templates & HIPAA Requirements

Study Support Resources

Recruitment Materials & Guidelines

Policies & Guidance

SOPs

Checklists & Worksheets

HOME > RESOURCES & GUIDANCE

Resources & Guidance

Throughout the lifecycle of a research study, many regulations, policies, and standard operating procedures apply – from the initial submission, through continuing reviews and modifications, and finally to study closure. Our resources can provide navigation for the research community, as well as for IRB analysts and reviewers.

- It is important to always download these resources directly from the IRB website, instead of saving a personal copy or re-using from a previous study, to ensure you have current information since our resources may be updated at any time.

Definitions

- Protocol Templates & Forms
- Consent Templates & HIPAA Requirements
- Study Support Resources
- Recruitment Materials & Guidelines
- Policies & Guidance

Resources & Guidance

Protocol Templates & Forms

Consent Templates & HIPAA Requirements

Study Support Resources

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SOPs

Checklists & Worksheets

HOME > RESOURCES & GUIDANCE > STUDY SUPPORT RESOURCES

Study Support Resources and Templates

The Northwestern University Institutional Review Board (IRB) provides a variety of resources to help investigators conduct compliant human participant research. The tools below were created to support investigators in properly organizing paper based or electronically retained regulatory documentation and research data.

Investigators are encouraged to maintain a real-time accounting of all study related documents and data. Investigators should have all regulatory and participant-related information properly documented, as it plays a crucial role in validating research results throughout the life of the study.

Not all documents in the table below will be applicable to all studies. All study support resources and templates are editable. The user is encouraged to make changes to the tools to suit the study specific needs.

Activity/Process:	Resources:	Instructions:
Enrollment	Assent and Parental Permission Enrollment Log Screening, Enrollment, & Withdrawal Log	Tracks participant enrollment in real-time (including screening and withdrawals).
Delegation of Authority (DOA)	Biomedical Research DOA Clinical Trial DOA Social Behavioral Research DOA	Tracks the roles and responsibilities of study team members over time. With minor edits, you can also track training and CV/resume expiration dates.
Consent Process	Documentation of Consent Process Form (Word) Consent Form Collection Alternative (Excel)	Documents the consent process for individual participants in real-time.

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Participant Eligibility	Biomedical Research Eligibility Checklist Social Behavioral Research Eligibility Checklist	Documents participant eligibility (whether they have been included or excluded appropriately).
Drug or Device	Device Accountability Log Drug Accountability Log	Tracks study product dispositions and/or device utilization.
Regula Research Record	Regulatory Binder Checklist Research Record Components	Ensures complete regulatory files or research records. Essential documentation assists in the successful management of a protocol.
Participant Documentation	Participant Identifier Log Research Payment Log Visit Checklist	Stores participant identifiers, track in real-time participant payments, or document an individual participant's study visit cycle.
Protocol Adherence	Protocol Deviation Log Note to File Template	Provides context, additional information, or justification for items that may need clarity within the record.
Recruitment	Recruitment Advertisement Log Recruitment Pre-Screening Log	Tracks research study advertisements and pre-screening during recruitment.

Research Record Checklist

Principal Investigator: _____ **Study #:** _____

Study Title: _____

Protocol and Amendments

- ☐ Current IRB-approved protocol
- ☐ Previous IRB-approved protocol(s)
- ☐ Protocol Deviation Log

Informed Consent Documents

- ☐ Current IRB-approved Informed Consent form(s) (this should have an IRB watermark at the top of the document with the approval period)
- ☐ Previous IRB-approved Informed Consent form(s) (also with IRB watermark)

IRB Documentation

- ☐ Initial IRB approval letter
- ☐ IRB approval letters for all Continuing Reviews
- ☐ IRB approval letters for all Modifications
- ☐ IRB acknowledgement letters for all Reportable New Information submissions
- ☐ Any signed documentation/agreements related to grant or other funding
- ☐ Copies of letters of support / collaboration from locations / IRB approval letters from other study sites
- ☐ Copies of all email correspondences with the IRB (automated eIRB System reminders may be omitted)

Other IRB Approved Documents

- ☐ Sample debriefing script
- ☐ Copies of all advertisements/recruitment materials
- ☐ All IRB approved study tools (e.g. questionnaires) or data collection forms

Study Personnel Documentation

- ☐ Human subjects training completion certificates for all study personnel (CITI or NIH training)
  - Please ensure that all study personnel have up-to-date training
- ☐ CVs for all Principal Investigators and Co-Investigators
  - CVs should be updated within the last two years
- ☐ Delegation of Authority (DOA) Log (recommended but not required)
  - Tip: The DOA Log lists study team members, the research tasks for which each member is responsible, the start and end dates that each member works on a study, and signatures of each member. This tool can be helpful to clarify research roles and responsibilities. Template DOA logs can be found on the IRB website.

Conducting Compliant Research: Resources!

- Protocol Templates & Forms
  - Debriefing Information Template (HRP-1720)
- Consent Templates & HIPAA Requirements
  - Suggested Consent Language
- Recruitment Materials & Guidelines

- Study Support Resources

- Policies & Guidance
  - Investigator Manual (HRP-103)
  - Human Research Protection Program Plan (HRP-101)
- Post-Approval Monitoring

- SOPs
  - HRP-091 Written Documentation of Consent
- Checklists & Worksheets
- Human Research Protections Training
- Education
- Contact Us: Institutional Review Board (IRB) Office

Conducting Compliant Research: Review!

- **Ethical Principles** of human research in response to past research abuses.
- **Regulations** governing human participant research are based on ethical principles of human research.
- **Applicability** depends on funding agency and research procedures/populations
- All members of the Northwestern University research community are **responsible** for upholding the highest standards of ethical and professional conduct as defined in University policies, procedures and guidelines, and sponsoring agency policies and regulations.
- The IRB's approach to **all** research adheres to the principles outlined in the regulations, which are based on the founding ethical principles of human research, and AAHRPP best practices.
- We are here to help!
  - IRB Office provides guidance, tools, training, compliance, education, and support to help you maintain compliant research.

THANK YOU!

ANY QUESTIONS?