

HUMAN SUBJECTS PROTECTION TRAINING (Alternative to CITI – for “Exempt” research projects)

Why is there a need for regulations for Human Subjects Research?

Tuskegee Syphilis Study: This study (1932-1972) was designed as a natural study of the course of syphilis in African-Americans. At the time the study began there was no known safe and effective treatment. Hundreds of men who did not know they had syphilis and hundreds of men without syphilis (serving as controls) were enrolled into the study. The men were recruited *without* their fully informed consent. They were deliberately misinformed about the need for some of the procedures. For example, spinal taps were described as necessary and special "free treatment" for bad blood.

More importantly, even after penicillin was found to be a safe and effective treatment for syphilis in the 1940s, the men with syphilis were denied antibiotics. In addition, the researchers continued to protect the status of the study as a "natural history." To prevent the subjects from being treated by the military or by local physicians, the investigators arranged with the local draft board to prevent the men from being drafted, arranged with local physicians to withhold treatment, and told the men that if they volunteered for the military, they would no longer receive financial compensation for taking part in the study. The study continued to track these men sporadically until 1972 when the first public accounts of the study appeared in the national press. Not providing penicillin once it was deemed safe and effective may have been responsible for 28 deaths, 100 cases of disability, and 19 cases of congenital syphilis.

Some of the ethical problems involved in this study were: lack of informed consent, deception, withholding information, withholding available treatment, putting men and their families at risk, and exploitation of a vulnerable group of subjects who would not benefit from participation.

Restaurant Letter Study (2001): It is important to note that not all the events that raise concerns about research ethics in both biomedical and social and behavioral research occurred before the 1974 congressional hearings. In 2001, a faculty member from the business school of a major university designed a study to see how restaurants would respond to complaints from putative customers. As part of the project, the researcher sent letters to restaurants falsely claiming that he and/or his wife had suffered food poisoning that ruined their anniversary celebration. The letters disclaimed any intention of contacting regulatory agencies and stated that the only intent was to convey to the owner what had occurred "in anticipation that you will respond accordingly." Restaurant owners were understandably upset and some employees lost their jobs before it was revealed that the letter was a hoax. The researcher later admitted the falsehood in a letter of apology to each restaurant. The study had not been submitted to an IRB for review. An investigation by the Federal Office for Human Research Protections (OHRP) followed. In addition, the restaurants filed a lawsuit against the university.

Some of the ethical problems involved in this study were: deception, lack of informed consent, and infliction of emotional distress.

These and other examples point to the reason Institutional Review Boards (IRBs) are invaluable and ensuring the protection of human subjects in research.

What is Human Subjects Research?

Ask, "Is It Research?"

Federal Regulations define research as "a systematic investigation, including development, testing, and evaluation, designed to develop or contribute to generalizable knowledge" (45CFR46.102(d)). As described in the Belmont Report "...the term 'research' designates an activity designed to test a hypothesis [and] permit conclusions to be drawn... Research is usually described in a formal protocol that sets forth an objective and a set of procedures to reach that objective."

Ask, "Does It Involve Human Subjects?"

A human subject is defined by Federal Regulations as "a living individual about whom an investigator conducting research obtains (1) data through intervention or interaction with the individual, or (2) identifiable private information." (45 CFR 46.102(f)(1),(2))

Living individual – The specimen(s)/data/information must be collected from live subjects.

"About whom" – a human subject research project requires that the data received from the living individual is **about** the person.

Intervention includes physical/psychological procedures, manipulations of the subject, or manipulations of the subject's environment for research purposes.

Interaction includes communication between the investigator and the subject. This includes face-to-face, mail, and phone interaction as well as any other mode of communication.

Identifiable private information "includes information about behavior that occurs in a context in which an individual can reasonably expect that no observation is taking place," (such as a public restroom) "and information which has been provided for specific purposes by an individual and which the individual can reasonably expect will not be made public (for example, a health care record)." (45 CFR 46.102(f)(2)) "Identifiable" means the information contains one or more data elements that can be combined with other reasonably available information to identify an individual (ex: Social Security #).

Examples of Studies that may not be Human Subjects Research:

- Data collection for internal departmental, school, or other Institutional administrative purposes is often not human subjects research. Examples: teaching evaluations, customer service surveys
- Information-gathering interviews where questions focus on things, products, or policies rather than about people or their thoughts regarding themselves are not human subjects research. Example: canvassing librarians about their library's inter-library loan policies
- Course-related activities designed specifically for educational or teaching purposes, where data is collected from and about human subjects as part of a class exercise or assignment, but are not intended for use outside of the classroom may not be human subjects research.
- Biography or oral history research involving a living individual that is not generalizable beyond that individual may not be considered human subjects research. For example, historical interviews of blues musicians would not fit the definition. However, when the interview data are used to explain shifts in musical preferences, that work likely fits the definition of research. See <https://www.research.olemiss.edu/irb/guidance/oral-history> for more information.
- Some publicly available data do not require IRB review. Examples: census data, labor statistics. An investigator should not assume information qualifies as "publicly available" merely because it has been posted on an electronic website and can be accessed without authorization. See <https://www.research.olemiss.edu/irb/guidance/public-data> for more information.
- Coded specimens and/or data sets that were not collected for the currently proposed projects do not need IRB review as long as the investigator receiving the data/specimens cannot link the data/specimens back to individual subjects (i.e., are not identifiable).
- "Research" generally does not include studies for internal management purposes such as program evaluation, quality assurance, quality improvement, fiscal or program audits, or marketing studies. It generally does not include journalism or political polls. However, some of these activities may include or constitute research in circumstances where there is a clear intent to contribute to generalizable knowledge by systematically collecting data. See <https://secure4.olemiss.edu/umpolicyopen/ShowDetails.jsp?istatPara=1&policyObjidPara=10988248> for more information.
- *Note: the examples above are not an all inclusive listing. Please see the following website for further information.* (<http://www.hhs.gov/ohrp/policy/engage08.html>)

Examples of Studies that may be Human Subjects Research:

- Studies intended to contribute to general knowledge that collect data through intervention or interaction with individuals. Examples of this type of research include the evaluation of teaching methods and programs, most surveys (including internet surveys), studies that involve deception, research involving risky behaviors or attitudes, and interviews with minors. *Data collection using non-identifiable information may be exempt. (The UM IRB has sole authority to determine exemptions.)*
- Studies that involve human subjects to test devices, products, or materials that have been developed through research for human use.
- Studies using private information that can readily identify individuals, even if the information was not collected specifically for the study in question.
- Studies that use identifiable specimens of bodily materials such as cells, blood, urine, tissues, organs, hair, or nail clippings, even if one did not collect these materials for the study.

Research belonging to any of the above categories must comply with the Federal Regulations and the Institution's policies for the protection of human subjects.

*Please visit the [Office for Human Research Protections \(OHRP\) website](#) for the code of federal regulations.

What are the main ethical principles that govern research with human subjects?

In 1978, the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research created "[The Belmont Report: Ethical Principles and Guidelines for the Protection of Human Subjects of Research](#)." The Belmont Report sets forth the basic ethical principles required for research involving human subjects. The Belmont Report encompasses three key principles which are: **respect for persons (autonomy), beneficence, and justice.**

Respect for Persons

"Respect for persons incorporates at least two ethical convictions: first, that individuals should be treated as autonomous agents, and second, that persons with diminished autonomy are entitled to protection. The principle of respect for persons thus divides into two separate moral requirements: the requirement to acknowledge autonomy and the requirement to protect those with diminished autonomy." The investigator is obligated to respect each participant as a

person capable of making an informed decision regarding participation in the research study. The investigator must ensure that the participant has received a full disclosure of the nature of the study, the risks, benefits and alternatives, with an opportunity to ask questions.

Beneficence

"Persons are treated in an ethical manner not only by respecting their decisions and protecting them from harm, but also by making efforts to secure their well-being." Such treatment falls under the principle of beneficence, which refers to the investigator's obligation to attempt to maximize benefits for the individual participant and/or society, while minimizing risk of harm to the individual. An honest and thorough risk/benefit calculation must be performed. When assessing risk associated with participation in a research study, investigators need to consider both the probability of harm and the magnitude of such harm.

Justice

"Who ought to receive the benefits of research and bear its burdens? This is a question of justice, in the sense of "fairness in distribution" or "what is deserved." An injustice occurs when some benefit to which a person is entitled is denied without good reason or when some burden is imposed unduly. Justice demands equitable selection of participants, i.e., avoiding participant populations that may be unfairly coerced into participating, such as prisoners and institutionalized children. The principle of justice also requires equality in distribution of benefits and burdens among the population groups likely to benefit from the research

What are some other ethical considerations in human subjects research?

The primary concern of the investigator should be *the safety and well-being* of the research participant. This is accomplished by carefully considering the risk/benefit ratio, using all available information to make an appropriate assessment and continually monitoring the research and the status of each participant as the study proceeds.

Risk is the probability of harm (physical, psychological, social, or economic) occurring as the result of participation in a research study. Both biomedical and behavioral research may entail some level of risk to a person's health, physical, psychological, or socioeconomic well being. Researchers must consider the following risks when conducting their study:

- **Risk Resulting from Study Questions/Surveys:** In human subjects research, particularly social and behavioral projects, subjects may feel stress caused by the research questions or procedures. Perhaps questions raise painful memories or unresolved issues. Interviews of survivors of personal or state violence, for example, may be very stressful. Questions about at-risk behaviors may cause embarrassment, feelings of guilt, or legal liability when that behavior is generally illegal or socially unacceptable.

- **Breach of Confidentiality:** A breach of confidentiality is often the greatest risk to participants in social and behavioral human subjects research. Reputations or employment may be damaged or insurance coverage may be jeopardized if confidentiality is not maintained. Information about subjects' activities may place them at risk of legal action. For example, if a researcher asks parents how they discipline their children, information about child abuse may be unexpectedly obtained. Many times, the law requires the researcher to report such information. Similarly, if subjects divulge information about illegal activities or stigmatized activities, any disclosure of that information could place the subjects at risk of significant harm.
- The scientific investigator must obtain *informed consent* from each research participant. Informed consent is the process of informing potential subjects about the key facts of a research study and what their participation will involve. Informed consent can be obtained orally in some cases or as written consent after the participant has had the opportunity to carefully consider the risks and benefits and to ask any pertinent questions. The three fundamental aspects of informed consent are:
 - **Voluntariness:** Individuals' decisions about participation in research should not be influenced by anyone involved in conducting the research, and consent must be freely given (e.g., employers/teachers cannot pressure their employees/students to participate).
 - **Comprehension:** Individuals must have the mental or decisional capacity to understand the information presented to them in order to make an informed decision about participation in research.
 - **Disclosure:** Researchers must disclose the purpose of the study and any reasonably foreseeable risks to the individual. See <https://secure4.olemiss.edu/umpolicyopen/ShowDetails.jsp?istatPara=1&policyObjidPara=10879821> for information on the use of deception in research.

Elements of informed consent must include:

- *Purpose* of the research
- *Procedures* involved in the research
- *Alternatives* available should a subject decide not to participate in the research
- All *foreseeable risks and discomforts* to the subject. *Note that these include not only physical injury but also possible psychological, social, or economic harm, discomfort, or inconvenience.

- *Benefits* of the research to the individual human subject
- *Length of time* the subject is expected to participate
- *Payment* for participation (if applicable)
- *Person to contact* for answers to questions or in the event of a research-related injury or emergency
- Statement that *participation is voluntary* and that refusal to participate will not result in any consequences or any loss of benefits that the person is otherwise entitled to receive
- Subjects' *right to confidentiality and right to withdraw* from the study at any time without any consequences
- See <https://www.research.olemiss.edu/irb/protocol/forms#Reference> for model consent forms.

You may now complete the ACITI quiz at <http://www.research.olemiss.edu/ACITI>