

WOX7001 - RESEARCH METHODOLOGY

Topic 9 - Ethical Issues

Agenda

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GENERAL
ETHICS
PRINCIPLES

02

AREAS OF
DISHONESTY

03

ETHICAL
GUIDANCE AND
EXAMPLE

Definition of Scientific Misconduct

Scientific misconduct is fabrication, falsification, or plagiarism in proposing, performing, or reviewing research, or in reporting research results.

Basics of Ethics in Research

- ❖ Dishonest, fraudulent, or unethical researchers can circumvent the scientific method

Example of Misconduct in Research. The Tuskegee Syphilis Study

- ❖ Was investigation of long-term effects of untreated syphilis on AA males in Macon County, AL
- ❖ Decision was made to do long-term prospective study and follow long-term effects until death
- ❖ Participants were never told real nature of study – were not afforded informed consent
- ❖ Treatment for syphilis was withheld (even after discovery of penicillin to treat syphilis) – study continued for 40 yrs.

Regulation of Research and Protection of Research Participants

- ❖ Proponents of situational ethics argue that no general rules can be applied to all situations – each action is unique
- ❖ Belmont report – serves as a fundamental document for current federal regulations for protection of human subjects – 3 principle:
 1. Respect for Persons
 2. Beneficence
 3. Justice
- ❖ Code requires that protocols involving human subjects be reviewed by an IRB.

<http://www.ohrp.osophs.dhhs.gov/humansubjects/guidance/belmont.htm>

Informed Consent

❖ Inherent to this principle are 4 elements:

1. Subjects are made fully aware of the nature and purpose of the research project
2. Consent is voluntarily given
3. The person involved has the legal capacity to give consent
4. The responsibility for obtaining consent rests with the researcher

Privacy and Confidentiality

- ❖ Privacy refers to capacity of individuals to control when and what conditions others have access to their behaviors, beliefs, and values.
- ❖ Confidentiality refers to linking information to a person's identity
- ❖ Informed consent should indicate how researcher will protect confidentiality of participants

Privacy and Confidentiality

- ❖ Some procedures that can ensure confidentiality:
 - ❖ Obtaining anonymous information
 - ❖ Code data so that identifying info is eliminated
 - ❖ Substitute other names
 - ❖ Do not release or report individual data
 - ❖ Limit access that could reveal individual identity
 - ❖ Report data only in group form
 - ❖ Used computerized methods for encrypting data

Areas of dishonesty

Prepared by: HSM, NAG and SUH

Areas of Dishonesty

1. Plagiarism—using the ideas, writings, and drawings of others as your own
2. Fabrication and falsification—making up or altering data
3. Nonpublication of data , also called “cooking data”
4. Faulty data-gathering procedures
5. Poor data storage and retention

Areas of Dishonesty

6. Misleading authorship—who should be an author?
 - Technicians do not necessarily become joint authors.
 - Authorship should involve only those who contribute directly.
 - Discuss authorship before the project!

1. Plagiarism

- ❖ Means using ideas, writings, or drawings of others as your own.
- ❖ Happens with student work as well – with advent of Internet, the availability of research is greater – is often more tempting
 - ❖ Can occur unintentionally with students and researchers if they are careless or nonsystematic about their “pre-writing” and revision to a paper/manuscript
- ❖ Common practice is to circulate drafts of papers among scholars who are known to be working in a specific area – give credit where credit is due.

2. Fabrication and Falsification

- ❖ Occasionally, scientists will be caught “making up” research –
 - ❖ Technical term is called “Cooking the data”
 - ❖ “I only need a few more subjects, but I am running out of time.”
 - ❖ Falsification can also occur with cited literature –
 - ❖ Be careful how you are interpreting what an author says – “If it ain’t there, don’t make it up out of thin air”.
 - ❖ Is another reason you should rely primarily on primary, original sources.

3. Nonpublication of Data

- ❖ This refers to “not including” data because they don’t support the hypothesis
- ❖ Sometimes in the data, there are extreme scores or “outliers” - and these outliers are “trimmed” from the data set
- ❖ They can result in non significant findings but should “automatically” be cut.
- ❖ Non significant results often give just as much important information as do significant results.

4. Faulty Data Gathering

- ❖ Aspects that students should be aware of:
 1. Continuing with data collection from participants who are not meeting the requirement of the research EXAMPLES: Subject comes in with a hangover and you use that data anyway
 2. Malfunctioning equipment
 3. Inappropriate treatment of subjects
 4. Recording data incorrectly

5. Poor data storage and misleading authorship

Poor Data Storage –

- ◊ Rule of thumb is to keep data for 3 years
- ◊ All original data should be kept if there is a question

5. Poor data storage and misleading authorship

Misleading Authorship –

- ❖ Order of authorship is based on author's contributions
- ❖ 1st author usually developed the idea for the research
- ❖ This needs to be decided BEFORE the research is started.
- ❖ Two rules help to define authorship:
 1. Technicians are not necessarily authors
 - ☞ Data collectors are not necessarily included in the authorship
 2. Authorship SHOULD include only those who directly contribute

GUIDANCE and EXAMPLE

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ETHICAL ISSUE REGARDING COPYRIGHT

- What is “fair use” of materials?
 - Purpose: Commercial or educational?
 - Nature: Is copying expected?
 - Amount: How much is copied?
 - Effect: What is the influence on the market?
- For teaching: Articles, chapters, overheads, slides, PowerPoint presentations
- For research: Figures and tables, standardized tests, questionnaires, previously published scholarly work
- If you are unsure, *ask permission!*

EXAMPLE: Plagiarism

In preparing her thesis introduction, Graduate Assistant Christina periodically takes multiple sentences verbatim from some of her sources (her attitude is, “I couldn’t have written it better myself”).

- Is she wrong to do this?
- If she provides a reference to her sources at the end of the paragraph, is she still wrong?

EXAMPLE: Fabrication and Falsification of Data

Professor Wade has strength-training data on 20 elderly participants. As he was madly processing his data to meet the ACSM abstract deadline, he realized that the sample did not show a significant increase in strength. Examining his data more closely revealed that 15 participants did improve, but 5 did not. He decided that they must not have adhered to the training, so he dropped them and now has a significant increase in strength.

EXAMPLE: Fabrication and Falsification of Data

- Has Professor Wade acted ethically?
- How long should you keep your data for others to see?
- Are you obligated to provide your data on request?

THANK YOU