



Curtin University

Research Integrity

Understanding your responsibilities as a researcher

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Learning Outcomes

- List and locate the Code outlining good research practices
- Identify your obligations as a researcher
- List and locate regulations governing human research ethics
- Describe the rationale for the development of regulations in human research ethics

Good research practices in Australia

- Australian Code for the Responsible Conduct of Research

https://www.nhmrc.gov.au/files/nhmrc/file/research/research-integrity/r39_australian_code_responsible_conduct_research_150811.pdf

- Curtin University's Policies and Procedures:

- Research Management Policy and Procedure
- Responsible Conduct of Research Policy
- Research Data and Primary Materials Policy
- Authorship, Peer Review and Publication of Research Findings Policy and Procedure
- <http://policies.curtin.edu.au/findapolicy/index.cfm>

Australian Code for the Responsible Conduct of Research

- Outlines what constitutes good research practice
- Provides information on the responsibilities of:
 - supervisors
 - students
 - researchers
 - institution

A strong research culture will demonstrate:

- Honesty and integrity
- Respect for human research participants, animals and the environment
- Good stewardship of public resources used to conduct research
- Appropriate acknowledgment of the role of others in research
- Responsible communication of research results

Responsibilities of the Research Integrity Office

- Provide training
- Provide specialised advice
- Process applications for permits/approvals
- Promote and ensure compliance

The Research Integrity Team is here to provide assistance to help facilitate high quality research that is conducted with integrity and within the legislative framework

Research Integrity Website



<http://research.curtin.edu.au/research-integrity-ethics/>

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Responsibilities of supervisors

- **Ensure training**

 - Discipline-based research methods and other relevant skills

- **Mentor and provide support**

 - Guide professional development

 - Provide guidance in all matters relating to research conduct and overseeing all stages of the research process including ethics and other approvals

- **Ensure valid and accurate research**

 - Oversight of the research outcomes

 - Research methods and outcomes are appropriate and valid

 - Ensure appropriate attribution

 - Appropriate credit for their work

Responsibilities of research trainees

- **Seek guidance**

A research trainee must demonstrate a professional attitude towards the research.

Frequent sessions with the supervisor are important, requiring the cooperation of both parties. The trainee should not wait until approached by the supervisor but should play an active part in maintaining an appropriate schedule of meetings.

- **Undertake induction and training**

A research trainee should complete all induction and training courses as soon as practical after starting research in an institution.

Responsibilities of researchers

Maintain high standards of responsible research

- Researchers must foster and maintain a research environment of intellectual honesty and integrity, and scholarly and scientific rigour
- Researchers must:
 - respect the truth and the rights of those affected by their research
 - manage conflicts of interest
 - adopt methods appropriate for achieving the aims of research
 - follow proper practices for safety and security
 - promote adoption of this Code and avoid departures from the responsible conduct of research
 - conform to the policies adopted by their institutions and bodies funding the research

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Responsibilities of researchers

Maintain high standards of responsible research

- Harvard professor Marc Hauser found guilty of eight counts of Scientific misconduct in 2010.

Was leader in the field of Animal Cognition research.

He had a differing interpretation to a colleague in a cognition experiment involving rhesus monkeys responses to sound patterns and published without seeking further confirmation of his conclusions.

His earlier research was also scrutinised as a result.

Responsibilities of researchers

Report research responsibly

- Researchers should ensure that research findings are disseminated responsibly

Retain research data and primary materials

Manage storage of research data and primary materials

Maintain confidentiality of research data and primary materials

Disseminate all research findings

Ensure accuracy of publication and dissemination

Responsibly communicating research findings in the public arena

Follow policies on authorship

Responsibilities of researchers

Report research responsibly

- University of Queensland (UQ) Parkinson's Disease Study (2011 - 2013) Professor Bruce Murdoch

Article published in in 2011 in European Journal of Neurology.

Involved using transcranial magnetic stimulation to help Parkinson's patients regain their ability to speak.

Concerns of academic misconduct were raised to UQ in 2012.

Investigation report concluded that no primary data could be located, and no evidence has been found that the study described in the article was conducted.

Responsibilities of researchers

Respect research participants

- Researchers must comply with ethical principles of integrity, respect for persons, justice and beneficence.
- Written approval from appropriate ethics committees, safety and other regulatory bodies must be obtained when required.

Responsibilities of researchers

Respect research participants

- Professor Frijter's 2013 UQ Brisbane bus study

Study involved people from different gender and ethnic background asking bus drivers for a free ride.

Study found evidence of racism.

The bus company complained.

Improper ethics approval found.

Research outcomes lost, as proper ethics approval was not obtained.

Significant setback for student, Supervisor demoted.

Responsibilities of researchers

Respect animals used in research

- Researchers must respect the animals they use in research, in accordance with the Australian Code of Practice for the Care and Use of Animals for Scientific Purposes.

Responsibilities of researchers

Respect animals used in research

- University of Oklahoma animal testing violations

Animals were not given pain relief to prevent them from suffering any undue pain, fear or distress.

Accused of not following protocols.

Failure to administer pain relief.

Inadequate veterinary care.

Responsibilities of researchers

Respect the environment

- Researchers should conduct their research so as to minimise adverse effects on the wider community and the environment.

Responsibilities of researchers

Respect the environment

- Andrew Wakefield, MMR and autism

A paper by Andrew Wakefield claimed that there was a link between the Measles Mumps Rubella (MMR) vaccine and autism.

This has had major impacts on MMR vaccination rates world wide.

The data had been manipulated, conflicts of interest were not declared, improper consent and recruitment etc.

The paper was retracted and he was deregistered as a doctor.

Responsibilities of researchers

Report research misconduct

- A researcher who considers that research misconduct may have occurred must act in a timely manner, having regard to the institution's policies.

Responsibilities of researchers

Report research misconduct

- Laboratory sabotage

Postdoctoral fellow at the University of Michigan found guilty of research misconduct for sabotaging another students work.

They switched labels, contaminated samples, the sabotage was finally proven by hidden video camera.

Responsibilities of researchers

Consumer and community participation in research

- Appropriate consumer involvement in research should be encouraged and facilitated by research institutions and researchers.
- Other guidelines:
 - NHMRC Statement on Consumer and Community Participation in Health and Medical Research

What is Human Research?

- Human research is conducted with or about people, or their data or tissue.



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Human Research Ethics in Australia

- National Statement on Ethical Conduct in Human Research (NHMRC)
 - <https://www.nhmrc.gov.au/book/national-statement-ethical-conduct-human-research>
- Australian Code for the Responsible Conduct of Research
 - https://www.nhmrc.gov.au/files_nhmrc/file/research/research-integrity/r39_australian_code_responsible_conduct_research_150811.pdf
- Curtin University's Research Management Policy
 - http://policies.curtin.edu.au/findapolicy/docs/Research_Management_Policy.pdf
- Curtin University's Responsible Conduct of Research Policy
 - http://policies.curtin.edu.au/findapolicy/docs/Responsible_Conduct_of_Research_Policy.pdf

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Key Principles of Human Research

- Respect for human beings
- Research merit and integrity
- Justice
- Beneficence

Chapter 1.1 of the National Statement on Ethical Conduct in Human Research

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Why Is Human Ethics Approval Necessary?

- To ensure protection of participants and researchers
- Research ethics is part of an institution's responsibilities for research governance
- The NHMRC Act (1992) requires all research involving humans to be subject to ethical review

Responsibilities as a Researcher

- Designing the research to minimise the risks of harm or discomfort to participants;
- Clarifying for participants the potential benefits and risks of the research;
- The welfare of the participants in the research context; and
- Respect privacy, confidentiality and cultural sensitivities.

Chapter 1.6, 1.7 and 5.2 of the National Statement on Ethical Conduct in Human Research

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Case Study

- **Stanford Prison Experiment (1973)**

A mock prison was set up in the basement of Stanford University and recruitment occurred through adverts.

More than 70 participants applied and 24 male college students were chosen.

Participants were paid \$15 per day.

Participants were assigned to either the role of prisoner or guard.

Participants were told they were free to leave at any time.

Project was terminated on the 6th day following obvious signs of participant distress.

<https://youtu.be/sYtX2sEaeFE>

Benefits and Risks of Human Research

- Research is ethically acceptable only when its potential benefits justify any risks involved in the research.
- The likely benefits may be to the participants, to the wider community, or to both.

Chapters 1.6 and 2.1 of the National Statement on Ethical Conduct in Human Research

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Benefits and Risks of Human Research

- Risk is the potential for a negative outcome or effect of the research:
physical, psychological, social, economic, legal and privacy.
- Risks are considered to occur on a spectrum of severity from inconvenience to discomfort to harm



Case Study

- Gang Leader for a Day (2013)

Study involved a multiple choice survey on urban poverty

Research design changed, no one at the university was notified.

First-year PhD sociology student from University of Chicago

Data collection was conducted in on of Chicago's most notorious housing projects.

Research student was held hostage by the gang leader.

Research student uncovered illegal activities and documented these in notebooks stored in an apartment of the gang leader's Mother.

Seeking and Giving Consent

- Consent should be a voluntary choice, and should be based on sufficient information and adequate understanding of both the proposed research and the implications of participation in it.

- Consent may be expressed orally, in writing or by some other means depending on:
 - a. the nature, complexity and level of risk of the research; and
 - b. the participant's personal and cultural circumstances.

Chapter 2.2 of the National Statement on Ethical Conduct in Human Research

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Case Study

- Tuskegee Syphilis Study (1932 – 1972)

Study to report the natural progression of syphilis

600 men enrolled:

Study population

Inducements

Disclosure

Penicillin cure in 1947

28 men died from syphilis, 100 from related complications, 40 wives were infected and 19 children born with congenital syphilis

Research Design

- Always keep in mind the core principles of the National Statement
- What is the purpose of the research?
- How will the research question be addressed?
- How will participants be recruited?
- Will the data identify the participants?
- Provide sufficient detail to balance risks, benefits and outcomes
- Participant information sheet and consent form
- Adverse events protocol
- Plan for data storage/retention/disposal

Summary

- List and locate the Code outlining good research practices
- Identify your obligations as a researcher
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- Describe the rationale for the development of regulations in human research ethics

Questions and Contacts

- Ethics application workshops using InfoEd
<http://research.curtin.edu.au/ethics-integrity/human/training/>
- Ethics Support Officer
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- Research Ethics Officer
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