



University of Macau

Research Ethics Principles

Ethics refers to the code of moral principles that relate to appropriate behavior, and is relevant to all members of any society, as well as to the institutions of that society. Ethically appropriate behavior, which includes the way research is to be conducted, relates to all actions that are considered by a society, either explicitly (by law) or implicitly (by accepted practice), to be right, correct, and/or proper actions.

Therefore, ethical research practice applies to all members of all faculties, departments, centres, and/or groups of the University of Macau; and is relevant to anyone, whether a faculty member, staff, or student, who conducts research in any field of study.

Rationale & Objectives of the Principles:

These principles are for providing practical suggestions for preserving the ethical integrity of research. A dedication to ethics in research results in greater attention to procedures and policies, and leads to better research outcomes. It also impacts the credibility and professional integrity of research in the academic community and the general public. Therefore, these principles are designed to help researchers observe ethical behavior in performing research and avoid possible ethical misconduct. They can be used as a reference and resource for research practices, applicable to both experienced and new research practitioners.

Key Ethics Issues & Best Practices:

Research ethics applies to all fields of research. However, additional care must be observed when humans are the subjects of study. The key areas of concern include, but are not limited to: (A) Honesty and Integrity in Research; (B) Proper Treatment of Participants in Research; (C) Integrity and Proper use of Data and/or Privileged Information; (D) Avoiding Plagiarism; and (E) Responsibilities of Principal Investigators. Best practices of each are described in the following:

(A) Honesty and Integrity in Research

“Research integrity is the consistent application of values and principles essential to achieving excellence in the search for, and dissemination of, knowledge; These values include honesty, fairness, trust, accountability, and openness” (Expert Panel on Research Integrity, 2010, p. 38).

Five values on research ethics were identified by the Expert Panel on Research Integrity (2010): *“Honesty: Being straightforward, and free of fraud and deception; Fairness: Being impartial and using sound judgment free of prejudice or favoritism; Trust: Being reliable, as a person or institution, through character and action; Accountability: Being responsible and answerable for*

one's actions; *Openness*: Being transparent in process and practice, as characterized by visibility or accessibility of information" (p. 38). These values can serve as guidelines for researchers to maintain honesty and integrity when conducting, writing, and presenting findings from research studies.

(B) Proper Treatment of Participants in Research

Whenever human beings are studied, or private and personally identifiable information of any form is collected, their rights must be protected. The Panel on Research Ethics of the University of Macau abides by international standards for the treatment of human beings when engaged in research. All researchers who study human beings, even if using secondary sources (such as existing data bases, which might contain personal information about the persons who participated in previous studies that compose those data bases), are to follow these principles:

The research guarantees to protect the rights, dignity, privacy, and personal and emotional safety of all participants in the study, that participation will be voluntary and consented without any coercion, that participants' identities will be protected and made anonymous when required, and any personal information will be maintained in strictest confidentiality.

Respect and Protection of Autonomy, Rights, and Dignity of Participants: The researcher will respect and protect the autonomy, the rights, and dignity of participants, including informing them of the identity of the researcher(s) and the purpose of the research, which will be given, both verbally and in writing, in a language they know and understand, such that they will have the right to choose whether or not to participate, to change their decision or withdraw from the study at any stage of the research without any reason. In the case of research with children, consent/assent will be sought from the parents/guardians and also from the children, such that the children's right to refuse to participate will be respected.

Privacy, Anonymity, and Confidentiality: The privacy, anonymity, and confidentiality of data identifying the participants should be strictly maintained, such that the identity of the participants will not be divulged, all information and records provided by the participants or obtained directly or indirectly on or about the participants should remain confidential, including in storing, accessing, transferring, and disposing of their records, whether these are written, automated, or in any other medium; likewise, the participants will be informed that they are free to refuse to allow the use of data gathering devices, such as cameras, audio/visual recorders, etc.; and that participants will be debriefed or have access to debriefing information after completion of the research.

Precaution and Risk Minimization: All possible precautions should be taken to preclude and/or minimize any physical, social, emotional, or psychological risks to the participants, and to avoid consuming the time of participants or make them incur undue loss of resources and/or income.

(C) Integrity and Proper use of Data/Privileged Information

The researcher is responsible to maintain the integrity of the data by ensuring the veracity of any statements related to the data, or by avoiding omissions that could alter the data. Researchers are also obliged to keep accurate and complete records of the data for documentation purposes. There should

be enough detail to allow replication, and to affirm the conclusions, of the study. Careful records also aid the researcher's memory for long-term studies that might take months or years; and could also assist the researcher in answering questions that might arise regarding the accuracy or genuineness of the data. Similarly, information about the measures and materials used, and their sources, should be documented and included as part of the study's methodology.

Data also include information on the people who are studied in research. Such information is considered privileged when it includes private information (such as age, income, education level, religious belief, etc.) about the persons under study, that they might otherwise not wish to share. Insofar as the researcher maintains and has easy access to this information, the researcher has an obligation to abide by the rules of privacy regarding such data, which might be in various forms, such as recorded interviews, questionnaires, clinical diaries, laboratory records, online information, and/or fieldnotes. Such data should therefore be stored, and, where appropriate, disclosed in such a manner that the privacy of the persons who were studied can always be assured.

Data should be stored safely and securely both during and after the study has been completed, and even after submitting the final report, or after the research has been published. Some funding agencies or journals might specify a time for which the data must be preserved.

(D) Avoiding Plagiarism

Plagiarism refers to taking the writings, ideas, and/or expressions of some other person, group, or legal entity, and selling or presenting them as one's own original work. For example, verbatim (word by word) copying of a phrase or longer section of someone's writing, or a term originated or made popular by someone else and presenting it as one's own, would constitute plagiarism. This applies to all forms of writing, including (but not limited to) historical backgrounds or descriptions, literature reviews, research results, summaries, grant applications, clinical research protocols, and student papers.

To avoid plagiarism, the writings (e.g., phrases or sentences) of other authors that are used must be enclosed in "quotation marks" wherever they are placed in the manuscript, should include the citation (name of the author/source), and should be listed in the paper's references. Such work should be cited (or given credit), whether the work was or was not published, and whether it was in written form, an oral presentation, or posted on a website. (Since publishers typically specify how to cite and reference consulted works, researchers should refer to their manuals of style.)

(E) Responsibilities of Principal Investigators

In addition to the responsibilities described above, a Principal Investigator (PI) who is in charge of other researchers is responsible for the work performed by those other researchers, and for the integrity of the entire research project. Therefore, the PI should do what is necessary to verify the specifics of the methodological procedures and of the validity of any recorded notes, data, tables, graphs, and reports that are prepared by those researchers. The PI is not only intellectually and professionally responsible for understanding and advocating ethical principles in the research, but also functions as a leader in how the research is conducted by the members of his or her research team. Although the above description focused on the leaders (the PIs) of research teams, the ethical regulations are equally relevant to any researcher who works as a sole investigator.

Reference:

Expert Panel on Research Integrity (2010). *Honesty, accountability, and trust: Fostering research integrity in Canada*. Ottawa, Canada: The Council of Canadian Academies.
<http://www.scienceadvice.ca>.
