Living in the Age of AI

Research ethics in Medical and Health Science: A responsibility beyond results

As future healthcare professionals and scientists, undergraduate medical and health science researchers occupy a unique space at the intersection of curiosity, compassion and responsibility. In this space, **research ethics** is not just a guideline - it's a commitment to integrity that underpins every experiment, survey and clinical study.

In health science research, the stakes are high. Our work has the potential to influence clinical practice, affect patient outcomes and shape public health policy. That's why ethical conduct in research is not optional - it's essential.

The **Declaration of Helsinki**, developed by the World Medical Association, states clearly:

> *"The health of my patient will be my first consideration... It is the duty of the physician to promote and safeguard the health, well-being and rights of patients, including those who are involved in medical research."*

This is a powerful reminder that participants in medical studies are not merely "subjects," but individuals deserving of dignity and protection.

As undergraduate researchers, we may not yet be leading large-scale clinical trials, but we are building the habits and values that will define our professional identity. Whether reviewing case studies, analysing anonymised data, or participating in faculty-led research, we are expected to uphold core principles such as **informed consent**, **confidentiality** and **scientific honesty**.

The **Belmont Report** (1979), a cornerstone of research ethics in the US, outlines three fundamental principles:

1. **Respect for Persons** – requiring informed consent and recognition of autonomy
2. **Beneficence** – maximizing benefits while minimizing harm
3. **Justice** – ensuring fair distribution of research burdens and benefits

These principles are especially critical in health science studies involving vulnerable populations, where ethical oversight protects against exploitation.

Furthermore, organisations like the **International Committee of Medical Journal Editors (ICMJE)** emphasise that:

> *"Authors are accountable for the accuracy and integrity of all aspects of their work. If questions arise, they must be resolved with transparency and honesty."*

Plagiarism, data manipulation, and improper authorship practices not only compromise the credibility of research but also erode trust in the scientific community. At the undergraduate level, it is essential to ask questions, seek mentorship, and commit to transparency in every phase of the research process.

Confidentiality, too, demands strict attention. Even with anonymised data, researchers must be cautious in how information is stored, shared and presented. The protection of personal health information is not just a legal requirement - it is a moral obligation.

Ethical research does not hinder innovation; it **enables meaningful, respectful and socially responsible discovery**. A well-designed, ethically-sound study carries more weight and fosters greater trust from peers, institutions and the public.

As contributors to this journal, we share a responsibility to not only produce rigorous academic work but to uphold the ethical standards that form the foundation of medicine and science. In doing so, we ensure that our pursuit of knowledge remains aligned with the core values of compassion, integrity and respect.

1. World Medical Association. Declaration of Helsinki: Ethical Principles for Medical Research Involving Human Subjects. https://www.wma.net (accessed xx)
2. The National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research. The Belmont Report. 1979. https://www.hhs.gov/ohrp/regulations-and-policy/belmont-report/index.html (accessed xx)
3. International Committee of Medical Journal Editors (ICMJE). Recommendations for the Conduct, Reporting, Editing, and Publication of Scholarly Work in Medical Journals. http://www.icmje.org (accessed xx)

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