



2025

KARNATAKA RADIOLOGY EDUCATION PROGRAM

CLINICAL RESEARCH – BRIDGING IMAGING & INNOVATION

SESSION – 12 – HISTORY OF BIOETHICS (2)



DR MUNIRAJU MARALAKUNTE

MBBS, MDRD (PGIMER), MBA (HHSM, BITS-PILANI)

REVIEWER-BMJ JOURNALS

ASSISTANT PROFESSOR

DEPTT. OF RADIOLOGY

SMSIMSR, CHIKKABALLAPUR



MEDICAL ETHICS – EVOLUTION

Period	Key Figure/Event	Contribution/Significance
1980s	Ethical issues of HIV/AIDS epidemic	Addressed patient privacy, duty to treat all patients, duty of patients to disclose HIV/AIDS status, duties to warn at-risk parties, vaccine research, and more.
1989	On Being A Scientist	Educated scientists in training on responsible conduct in research.
1990	Nancy Cruzan Case (Cruzan v. Director)	Landmark "right to die" case, led to a nationwide surge in advance directives.
1991	The Common Rule	Revised human research regulations for ethical conduct.
1991	Patient Self-Determination Act	Required healthcare providers to inform patients of their rights, inquire about advance directives, and ensure implementation of patient wishes.
1993	Cloning Human Embryos	Researchers successfully cloned human embryos.
1997	Universal Declaration on the Human Genome and Human Rights	Issued by UNESCO, known for its statement against human cloning and abuse of the human genome against human dignity.
1998	Terri Schiavo Case	Highlighted the ethical debates in the "right to die" and "pro-life" movements.

MEDICAL ETHICS – EVOLUTION

Period	Key Figure/Event	Contribution/Significance
2000	Office for Human Research Protections	Created within the US Dept HHS to provide leadership in protection of human subjects involved in research.
2002	Neuroethics	Formally defined as the examination of ethical aspects of treatment, perfection, or manipulation of the human brain. Dedicated centers for study emerged.
1990-2003	Human Genome Project	Mapped the human genome. Included an ethical, legal, and social implications (ELSI) program to address the impact on individuals, family, and society.
2013	Association of Molecular Pathology et al. v. Myriad Genetics	U.S. Supreme Court ruled that isolated and purified DNA cannot be patented, only modified DNA can. Invalidated Myriad's patents of the BRCA1 and BRCA2 genes.
2013	Jahi McMath case	Case reignited discussions on the brain death construct. She was declared dead by neurologic criteria, but her family argued no cardiac death. Kept on life support until 2018.
2013	U.S. BRAIN Initiative and E.U. Human Brain Project	Government-funded Neuroethics initiatives stimulating research and focusing on ethical, legal, and social implications. Elevated ethical standards.

MEDICAL ETHICS – EVOLUTION

Period	Key Figure/Event	Contribution/Significance
2015	Concurrent/Overlapping Surgeries	Whistleblower surgeon exposed policy of surgeons operating on multiple patients simultaneously. Led to scrutiny and issuance of guidelines by the American College of Surgeons.
2017	DoD Instruction: Medical Ethics in the Military Health System	Established policy, responsibilities, and requirements for DoDMEP. Created MHS Principles of Medical Ethics and DoD Medical Ethics Program. Provided guidance for military healthcare personnel.
2018	DoD Medical Ethics Center Charter	DMEC established to support the development, evaluation, and implementation of a systematic and integrated DoDMEP. Allied with USU's educational curriculum for enhancing professional military medical leadership.
2018	Birth of the first gene-edited babies	He Jiankui used CRISPR-Cas 9 technology to modify the CCR5 gene to give babies immunity to HIV. Raised ethical questions about genome editing.
2019	COVID-19 Pandemic	Significant ethical implications related to scarce resource allocation, healthcare disparities, personal liberties, care for incarcerated patients, vaccine development, and more. Shifted focus from individual patient to overall good.

QUIZ

QUESTION: WHAT WAS ONE OF THE PRIMARY ETHICAL VIOLATIONS IN THE TUSKEGEE SYPHILIS STUDY?

- A) PROVIDING TREATMENT WITHOUT CONSENT
- B) WITHHOLDING TREATMENT AND INFORMATION FROM PARTICIPANTS
- C) OFFERING PARTICIPANTS FINANCIAL COMPENSATION
- D) CONDUCTING THE STUDY FOR ONLY ONE YEAR

ANSWER

ANSWER: B) WITHHOLDING TREATMENT AND INFORMATION FROM PARTICIPANTS

THE **TUSKEGEE SYPHILIS STUDY** WAS AN UNETHICAL MEDICAL RESEARCH STUDY CONDUCTED BY THE U.S. PUBLIC HEALTH SERVICE BETWEEN 1932 AND 1972. THE STUDY INVOLVED 399 AFRICAN AMERICAN MEN WITH SYPHILIS WHO WERE MISLED ABOUT THEIR DIAGNOSIS AND WERE NOT PROVIDED TREATMENT, EVEN AFTER PENICILLIN BECAME AVAILABLE IN THE 1940S. RESEARCHERS AIMED TO OBSERVE THE NATURAL PROGRESSION OF UNTREATED SYPHILIS, BUT THIS LED TO SEVERE HEALTH CONSEQUENCES, INCLUDING DEATH, FOR THE PARTICIPANTS. THE STUDY'S ETHICAL VIOLATIONS, INCLUDING THE LACK OF INFORMED CONSENT AND WITHHOLDING OF TREATMENT, RESULTED IN PUBLIC OUTRAGE AND SIGNIFICANT CHANGES IN RESEARCH ETHICS AND REGULATIONS TO PROTECT HUMAN SUBJECTS.

THANK YOU

