the CINCINNATI ETHICS center

CincyDialogue

SHOULD SCIENTISTS PURSUE EXPERIMENTATION ON HUMAN SUBJECTS?

During the Cold War, fear over nuclear weapons meant more information regarding the effects of radiation on the human body was necessary to aid soldiers in combat. UC Health (then known as Cincinnati General Hospital) had a top-secret research contract with the U.S. Department of Defense to investigate radiation on human subjects. From 1960 to 1971, approximately ninety pre-existing UC Health patients receiving routine cancer check-ups were unknowingly given high levels of full-body radiation, resulting in subjects experiencing acute radiation sickness, with many dying as a result. Today, there is more restriction and oversight over experiments involving human subjects from groups such as the Institutional Review Board (IRB) to ensure ethical guidelines are followed and subjects are at low risk for harm. Human testing still occurs in low-risk settings, such as studies on pharmaceutical drugs or gene testing. As scientific and medical knowledge advances, the use of human subjects remains unavoidable. Still, the question remains: to what extent is human experimentation justifiable?

390,000
clinical studies using human subjects were registered globally in 2021.

192.1 million
animals are used each year in scientific research.

About 57% die as a result.

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By: Jordan Sewell

YES, IT DRIVES MEDICAL PROGRESS

The Cincinnati Radiation Experiments yielded lifesaving data on radiation exposure but were grossly unethical. In contrast, modern experiments follow strict IRB guidelines which ensure "the rights and welfare of human research subjects are protected." Prior to participating, subjects must sign informed consent forms that signify they understand and agree to the conditions of the study. In addition, such experiments often offer monetary compensation to their subjects since participating may pose a moderate risk to the volunteers' health. For some, the possibility of helping to find a cure for a deadly illness or receiving monetary reimbursement outweighs the potential risks. Ultimately, testing on human subjects remains the only way to gather accurate information specific to the human body. Experimentation on humans has helped find treatments for deadly diseases like malaria, typhoid, and cholera.

NO, IT MUST BE STRICTLY LIMITED

The Cincinnati Radiation Experiments targeted largely Black and low-income individuals, exposing an already marginalized group to illness and death. This raises concerns about whose lives are considered expendable for scientific progress. People in desperate need of money or treatment are more likely to "volunteer," blurring the line between consent and coercion. Such practices harm public trust, particularly in communities with histories of medical mistreatment. Ethical research demands equitable risk distribution, not exploitation. While animal testing harms animals, which have few protections, such experimentation does offer a way to gather biological data without endangering human lives. Furthermore, technological alternatives—like computer modeling and AI simulations—make it increasingly possible to conduct experiments while avoiding harm to living creatures.