

Human Experimentation

1. Introduction: Medical science involves a lot of trial and error. To determine whether or not a new treatment works, or what its side-effects are, and so on, we have to TEST it. We can start out with animals, sure, but eventually we'll need to test all new treatments on HUMANS. In this unit, we'll look at the ethics of using humans for scientific learning; or, more specifically, using them as test subjects in the clinical trials of new treatments.

Here is an example of the sort of human research misconduct we'd like to avoid:

- The Tuskegee Syphilis Study: From 1932 to 1972, the U.S. government observed about 400 black men with syphilis, in order to see how syphilis spreads, and what it does to the body. Keep in mind: (a) It is often fatal. (b) Syphilis had been cured by 1947. (c) The study only ended when it was leaked to the press and the nation became outraged.

In response to trials like this (and much worse ones conducted by Nazis during World War II), codes of ethics have been created, such as The Nuremburg Code and The Declaration of Helsinki. The major themes of these codes require the following:

- Honesty to the patient
- Informed consent of the patient
- Animal research before human research
- Minimize harm to participants as much as possible
- The potential benefit of the trial must outweigh the cost
- The trial cannot be conducted if death is a potential outcome of treatment
- Trials must be conducted only by qualified persons
- Patients must be free to stop participating at any point
- Scientists must stop the trial if harm to a participant seems likely
- The patient's well-being should always take precedence over the scientific value of the trial.

The standard of testing a new drug or treatment is the **randomized clinical trial**. This is when the participants of a study are divided into 2 groups: A group that receives the new treatment, and a group that does not. This is because, if we do not have some "control group" to compare the "test group" to, we will not really be able to get any real sense of how well the new treatment is working. The control group either receives a **placebo** (if we're comparing the effects of the new treatment to the effects of no treatment at all) or else they receive some older treatment that is already known to be effective (if we're comparing to the new treatment to the already-existing one). The trials are 'randomized' in the sense that who goes into which group is determined by randomized lottery (this is to reduce the possibility of discrimination).

2. Randomized Clinical Trials: But, do such randomized trials really adhere to our code of ethics? Samuel and Deborah Hellman say 'No'. Consider the following case:

- Scientists want to test a new drug (call it Drugocil) on human subjects, to see if it will effectively cure a fatal disease (call it Deathitis). 100 dying participants sign up for Drugocil. 50 of them are given the new drug. 50 are given a placebo.

Now ask: Do these scientists think there is a good chance that Drugocil will work?

- If Yes: Then these scientists are knowingly giving 50 people an ineffective placebo when they COULD be giving them Drugocil, which has a good chance of working.
- If No: Then why is this study even being conducted in the first place?

Furthermore, such trials, they say, require the conductor of the trial to act upon two conflicting motivations:

- (1) The Scientist/Utilitarian: The scientist's primary goal is to gain scientific knowledge. As such, the participants of a human trial are merely means to an end. So, if it comes down to a choice between harming the patient or stopping the trial, harm to the patient is justified because, in the end, the sacrifices of a few will benefit many.
- (2) The Physician/Deontologist: The physician's primary goal is to ensure and protect the well-being of the patient. As such, patients are never to be treated as means to an end. So, if it comes down to a choice between harming the patient or stopping the trial, one must stop the trial because the sacrifice of a few is not morally justified, even if doing so would benefit many.

The scientist-physician, it seems, has competing, irreconcilable obligations.

The question is: Is it morally permissible to give some patients an ineffective placebo even though you have a pretty reasonable suspicion that you could be giving them something that will save their lives? The scientist should say 'yes' but the physician should say 'no'. Should the well-being of the patients override the pursuit of scientific advancement?

Reply: The defender of the scientific pursuit will point out that 'pre-theoretical' suspicions are not valid. Validating these suspicions is, in fact, the whole purpose of the trial.

Rebuttal: Hellman & Hellman describe another case:

- Scientists want to test a new drug (call it Drugocil) on human subjects, to see if it will effectively cure a fatal disease (call it Deathitis). 100 dying participants sign up for Drugocil. 50 of them are given the new drug. 50 are given a placebo. Halfway through the trial, the scientists discover that the 50 patients receiving the treatment are getting well, while the 50 patients receiving the placebo still have advanced cases of Deathitis.

Halfway through this trial, they say, the physician-scientists HAVE gained some validation for their suspicion. Is it permissible for them to continue the trial? Is it permissible to continue administering the placebo to the 50 dying patients even though you know (or have reasonable evidence) that you could be giving them Drugocil instead, and probably save their lives?

Again, as a physician, clearly the trial should be stopped and everyone should be given the drug. But, as a scientist, clearly the trial should continue—otherwise, all of the valuable data gained will be forfeited, the study ruined, and the results unpublishable.

Reply: But, we can simply guarantee that all 100 patients at the beginning of the trial were fully informed. They KNOW that they are a part of a randomized trial and only have a 50% chance of actually receiving any treatment. This consent absolves the physician of any blame or obligation to stop the trial.

Rebuttal: It is plausible that the right to life or freedom from extreme harm is not one that can be waived. Such rights are INALIENABLE. As such, it is impossible to give informed consent to participate in such a trial.

For instance, we do not consider valid a signed contract where one agrees to become someone's slave, or agrees to be killed. Such rights cannot be forfeited.

Reply: First, this does not seem correct. For, if it were, it would rule out the possibility of **altruism**. Don't we consider it enviable when someone takes on great pain, or even death, in order to save or benefit many others? This is altruism. We respect those who act altruistically. This implies that we DO believe such rights can be forfeited.

But, second, even if the above rebuttal were true, it does not apply here. For, no one is HARMED in the study. The patients are not consenting to a 50% chance of being HARMED. Rather, they are consenting to a 50% chance of NOT BEING HELPED.

Arguably, we do not have a right to the aid of others. Furthermore, even if we did have such a right, surely such a right could be forfeited.

Rebuttal: Even so, it is still the physician's duty to ensure the well-being of their patients. As such, even if a PATIENT agrees to sacrifice their own well-being for the benefit of others, the PHYSICIAN still has a duty to help them.

Furthermore, it is questionable whether valid consent to such a trial can truly be given. For instance, the patient may be so eager to please their physician, or so fearful of damaging their relationship with their physician, the patient may feel coerced into agreeing to participate in the study.

Finally, in today's world of medicine, we often require new drugs to be conducted in not just a single trial, but SEVERAL. Is it permissible to continue giving placebos to a control group during the THIRD trial of a drug which has been hugely successful in its first and second trials?

[What do you think about this issue?]

3. Control Groups in the 3rd World: Marcia Angell agrees with the Hellmans, stating that clinical trials are ONLY permissible if there is no solid evidence that either group's treatment in the trial is better than the other. In effect, if there IS already an effective treatment on the market, it would be morally WRONG to give the control group a placebo. Rather, instead of a placebo, the control group should be given the older, known-to-be-effective drug, and the test group should be given the new drug.

But, this brings up a related worry. Consider the following scenario:

- Africa contains 70% of all people with HIV worldwide. In many countries, as many as 10-15% of the population is HIV positive. Needless to say, this is bad. Though we do not have a cure for HIV, we DO have a somewhat effective treatment for reducing the likelihood of transmission of HIV from an infected mother to her unborn child (or born child, e.g., due to breast milk). In the absence of treatment, the likelihood of transmission averages about 25%.

Now, scientists travel to Africa and ask 100 pregnant HIV-positive mothers there to participate in a trial for a new drug that reduces so-called "vertical" HIV transmission (from mother to child); call it 'HIV-B-Gone'. They give 50 women a placebo, and they give 50 women HIV-B-Gone. Of the 50 HIV-B-Gone children, only 5 contract HIV. Of the 50 placebo children, 12 do.

Are such clinical trials ethical? In this study, 17 children contract HIV, when it is likely the case that, if EVERYONE were given HIV-B-Gone, only 10 would have. Are the scientists morally blameworthy for the transmission of HIV to 7 children?

Angell argues that such trials are morally wrong. Isn't this essentially, she asks, what scientists did in the Tuskegee Syphilis Study? Scientists just sat by and watched people contract syphilis, and many died, even though a treatment was available. In effect, we can take Angell to be making an argument by analogy:

1. Failing to administer treatment in the Tuskegee Syphilis Case was wrong.
2. But, failing to administer treatment in modern 'Vertical HIV-Transmission' trials is morally analogous to failing to administer treatment in the Tuskegee case.
3. Therefore, failing to administer treatment in modern HIV-transmission trials is also morally wrong.

Reply: Scientists will often claim that the patients would not have received the treatment if the scientists had been completely absent. Therefore, failing to give treatment is just like 'watching nature take its course'. And there is nothing wrong with that.

Rebuttal: First, note that this is the same exact justification that scientists used to justify their behavior in the Tuskegee case. So, this is a rejection of premise ONE rather than two. (!) Let's question this line of reasoning:

The scientist is saying, "But, if we had not been present, the children would have contracted HIV anyway." So, the scientist thinks of herself as doing something similar to an "objective" journalist who is told "not to get involved." Imagine now a National Geographic journalist filming a baby panda bear drowning or getting eaten without intervening, consoling herself that this is 'nature's way'. Should she have helped the panda? Now imagine a harder case: A photojournalist in a war zone confronted with a screaming soldier who needs medical attention. What should she do? The standards of "objective" journalism say that the journalist should be invisible, and not intervene. Do the standards of morality require her to aid the soldier?

Is this excuse a good one? Imagine the example from day one. I see a child drowning in a pond. I allow the child to drown. I console myself by saying, "I simply allowed nature to take its course. As I watched the child drown, I was just being an objective observer. The child would have died in the same way had I not been present at all." Does this absolve me of guilt? Probably not. What is relevant is that, by being beside the pond, in a position to help, you have INSERTED YOURSELF into the causal system of the child's death. As such, you must help.

Similarly, is it possible that, by gathering these women to conduct a study, the scientists have not INSERTED THEMSELVES into the situation and made themselves causally relevant, such that it is now no longer possible to exist as an “uninvolved observer”—and, having the means to prevent it, they are now morally RESPONSIBLE for failing to give some of the mothers an effective treatment.

The Declaration of Helsinki states:

“In any medical study, every patient, **including those of a control group**, if any, should be assured of **the best** proven diagnostic therapeutic method.”

In light of concerns such as the present one, there have been proposals to change this to “...should be assured that he or she will not be denied access to the best proven method **that would otherwise be available** to him or her.” But, thus far, this proposal has been rejected. The Declaration still states that the use of placebos in a control group are only acceptable if there is NO known effective treatment.

Reply: Perhaps there is some way to object to premise 2 instead? Objectors (such as Baruch Brody) will insist that, overall, scientists in the HIV case are HELPING the sick. If they conduct the study, at least 50% of the participants get treatment. If they were absent, NO ONE would get treatment (contrast this with the Tuskegee case, where NO ONE was helped). Surely helping SOME does not then generate the obligation to help ALL? [What do you think about this? What is the right course of action?]

Two Further Concerns: Brody addresses 2 other worries about the 3rd world HIV trials:

- (1) **Consent:** Some suggest that these mothers are not truly consenting to be participants. They can either do nothing and let their kid contract HIV, or participate in the study and have a better chance at a healthy child. The options are simply too stark.

In the informed consent unit, we suggested that consent is only valid if there are reasonable alternatives. Letting one’s son or daughter contract HIV just does not seem to be a reasonable alternative. Therefore, valid consent to such trials is impossible.

Reply: Brody makes a distinction between **threatening** someone and making them an offer that is “**too good to refuse**”. If I tell you, “Be in my study or I’ll cut off your arm”, that is a threat. But, if you are drowning, and I tell you, “Be in my study or I won’t save you from drowning,” that is simply an offer that is “too good to refuse”. The former is coercion. The latter is not.

The latter is essentially what the scientists are doing. They are simply offering an opportunity for BENEFIT. They are not threatening to cause harm to anyone. And it is always permissible to offer someone a benefit, even if it is SO great a benefit that no one in their right mind would refuse it.

- (2) **Exploitation:** But, is it? It is not entirely clear that someone facing life or death (or their child's life or death) is simply agreeing to a wonderfully beneficial offer that is "too good to refuse". Or, at least, such situations can be dangerous. There is the danger that the agreeing party can easily be EXPLOITED in such cases.

Exploitation occurs when someone is used as a mere means to an end, toward some benefit which they do not share in, or when someone's poor situation or circumstances are taken advantage of for the sake of the exploiter's benefit.

Some worry that scientists are exploiting the 3rd world (since MANY drug trials have moved there, due to the more lenient restrictions, the more willing participants, and the more rampant diseases).

Reply: Brody claims that it is not exploitation if the participants then SHARE in some of the benefit of the trials. While it is true that the women in the study who are being given the medication will possibly receive some benefit (e.g., if it prevents their child from contracting HIV), but those on the placebo (and those whom the medication fails to help) are not receiving ANY benefit. Perhaps we could do better. For instance, we could alleviate the worry of exploitation if we simply continue to treat the participants after the trial is over, or perhaps even make some attempt to make the new treatment readily and cheaply available in their communities or nations later on (though Brody thinks this latter option would be too costly).

[What do you think? Is consent to such trials possible? Is exploitation a concern?]