

THE CONTROVERSY OF ETHICAL USE FROM NAZI MEDICAL EXPERIMENTS

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Research Question

Would it be ethical for doctors today to use the data and results collected from human experiments conducted on prisoners in the Nazi concentration camps?

Abstract

This project examines the different human experiments Nazi medical officials conducted on concentration camp prisoners without their consent. The following medical experiments were conducted: genetic studies, survival and enhancement of racial and biological qualities, and drug and treatment trials. This research outlines the specific details of each experiment and the physical, psychological, and emotional impacts on the victims. The defeat of the Nazi party resulted in the Nuremberg Code and the futures of the Nazi medical officials. This project discusses the question of is it ethical to use the data collected by these medical officials even if they were obtained without consent of the subjects.

Methods

In studying the specific and effects of Nazi experiments conducted in the concentration camps during World War II, the base of the research was a historical, qualitative approach consisting of many journal articles, encyclopedia websites, and database entries. Many of the sources were analyzed to outline specific experiments and its negative consequences on the victims. Some raw statistical data was looked at in discussing the number of victims for each experiment. Books were also analyzed in discussing the experiments. Testimonies outlined other resources were read in order to gain insight to the repercussions the experiments had on the victims, which became important in the understanding of the arguments and counterarguments for using Nazi research data in today's science.

Table 1: Experiment Types and Descriptions

NAME	DESCRIPTION	SURVIVAL
HIGH-ALTITUDE	To equilate atmospheric conditions at 36,000 ft in order to find the best way to save German pilots who were ejected at high-altitudes, victims were locked in and air-tight, low pressure chamber which could stimulate pressures up to 68,000 ft	78 out of 200 victims died, those who survived were dissected alive, the rest executed
FREEZING/WARMING	Victims were either dry frozen or place in freezing cold water in order to determine the lowest temperature the human body can reach before death occurred. Sun lamps, internal irrigation, hot baths, or body heat by copulation were used to determine the most effective way to resuscitate the victim	80-90 out of 280-300 died
SEA WATER	No food or water was given to the victims for five to nine days and forced them to only drink seawater; caused enormous pain and suffering that resulted in long-term bodily injury	90 Roma Gypsies were succumbed; unknown how many died
BONE, MUSCLE, AND JOINT TRANSPLANTS	Bones were broken in several places and muscles and nerves were removed in the same areas; either an incision in the leg would be made and muscle tissue would be removed, the wound then would be closed, a cast applied, and after a week of the first incision, more muscle was removed or an incision would be made and purposefully infected with gas gangrene, tetanus, or staphylococcus	Those who survived were either executed or left with permanent mutilation and disability
MUSTARD GAS	Inmates were deliberately wounded and infected with mustard gas, forced to inhale it, drink it in liquid form, or injected	Unknown
GAS GANGRENE AND SULFANILAMIDE	Physicians made incision on the victim and infected it with gas gangrene, then proceeded to rub wood shavings and glass to further aggravate the wound	Unknown
PHOSGENE	Inmates were exposed to toxic gas in order for researchers to find an antidote	A majority developed edema and four died
POISON	Four Russians' food was unknowingly poisoned; Some prisoners were shot with poisoned bullets; Some were poisoned with phenol; Others were exposed to cyanide	The Russians survived the food poisoning but were strangled, all shot died, and those who survived were executed
STERILIZATION/ARTIFICIAL SEMINATION	Ligation of male vas deferens and female ovarian tubes; injected irritating solution into the woman's uterus or cervix, which caused horrendous pain, bleeding, inflamed ovaries, and bursting spasms in the stomach; acid poured on their genitals; Sterilization by x-rays Female victims were strapped down and taunted them through the process of artificial insemination	Unknown
GENETIC TWIN STUDIES	A single injection of chloroform to the heart was given to both twins at the same time in order to determine the differences in autopsies	Around 1,000 sets of twins were under Mengele's care with only 200 sets surviving

Findings

- The Nazis were interested in eugenics, the science of improving a specific race or group by controlling breeding to acquire desired heritable characteristics. Their goal was to refine the health and performance of and increase the "master" (Aryan) race.
- Approximately 30 experiments were conducted, centering around one or more concerns: survival of military personnel, testing of drugs and treatments, and the advancement of Nazi racial and ideological goals
- Towards the end of WWII, the Allies were closing in on Hitler, prompting a massive destruction of the evidence of Nazi concentration camps and their data; data was still recovered
- Today, there is much debate whether it is ethical for modern-day medical professionals to use the data discovered and collected by the Nazi medical doctors in the concentration camps.
- Of all confirmed victims of the Nazi medical experiments, almost a quarter were either killed to obtain their organs for research or killed due to the experiments; although most survived, roughly more than 24,000 were left with severe and irreversible physical and mental damage

The Trial and Verdict

- Nuremberg, Germany became the site for the Nuremberg Medical Trials from December 1946 to August 1947.
- Judges from the United States, the United Kingdom, France, and the Soviet Union tried Nazi leaders and war criminals to hold them accountable for the crimes they committed
- Only twenty-two experimenters were brought to trial.
- The verdict of the Nuremberg Trial accounted twelve sentenced to death with one committing suicide before his execution, three with life imprisonment, four with imprisonment of ten to twenty years, and three acquitted
- The Nuremberg Trial was the first ethically-driven trial
- In order to ensure unethical medical procedures do not happen again, the Nuremberg Code was created to ensure international laws centered on the rights of human participants and require ethical standards
- The code outlines multiple laws to follow such as consent, the safety of the participant, proper facility and instruments, scientific credibility, and others.

Figure 1: Freezing Experiment



<https://www.telegraph.co.uk/news/science/science-news/3540339/How-Hitler-perverted-the-course-of-science.html>

Figure 2: High Altitude Experiment



<https://www.jewishvirtuallibrary.org/high-altitude-experiments>

Table 2: Pros and Cons of Publishing the Experiment Data

PROS	CONS
May help save lives today	Would legitimize the experiments and demean the victims
Victims would have suffered for nothing	Victims suffered greatly
Data can only be judged scientifically, not morally	Violated the Hippocratic Oath
-	Will fuel the Holocaust Denial Theory
-	"Bad Science"
-	Could be a dangerous precedent

Arguments

- Some survivors of the experiments believe the data obtained should be used today in case it could help scientists and medical professionals better understand the human body and its function
- The other portion of survivors believe the use of the experiments would legitimize the experiments the doctors performed, demeaning the victims for the sake of science
- Some argue that the other findings in research were done under horrid conditions similar to the Nazi regime and this data should not be seen as any less than the comparable data and conditions
- Certain scientists argue that while the data was obtained unethically, the raw data itself cannot be judged as ethical or not, but data is simply data and can be used
- Some believe since the data was obtained unethically, the researchers violated the Hippocratic Oath, which invalidates and questions their medical expertise
- If the data and work goes unpublished, it could fuel the Holocaust denial Theory
- The data could be seen as "bad science" because (a) the victims were malnourished and weak, resulting in different physiological responses than healthy individuals, (b) researchers could have altered the findings to fit their political aspirations, (c) the data was never replicated and could never be ethically replicated, and (d) invalidated and tainted due to the unethical nature of the experiments
- Some argue since the data cannot be replicated, it is best to use the data already present
- There is a possibility of a dangerous precedent sanctioning other groups to perform the same unethical and atrocious acts

Conclusion

- Most of the doctors who performed experiments were able to continue their practice, giving very little justice for the victims they injured or even killed
- Some survivors and researchers believe it should be used if it will save lives, for the victims' pain and sufferings would be all for nothing otherwise; other survivors and researchers believe it is unethical to use research which resulted in immense amounts of pain and obtained with no consent.
- There are two features of the Nazi period which are crucial in understanding the human experimentation: (a) racial hygiene was a social movement which resulted from the totalitarianism political system, which was drawn from contemporary biology and (b) there were no ethical or legal regulations which needed to be followed
- The science community and society must come to a decision whether to use the unethically obtained data, thoroughly examining the exact benefits and the weight of its good if published
- Overall, it is agreed that if the data were to be used, there should be a citation of the data which details the tortures and suffering the victims associated with that data endured