

Nazi Medical Experiments

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Inception

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During the Nazi era, scientific personnel executed numerous medical experiments, using concentration camp prisoners as involuntary human subjects. Germany's pursuit of racial and military advances was the driving force behind the majority of these experiments. After World War II, these experiments were deemed unethical at the Nuremberg Doctors' Trial, and involved parties were judged accordingly for their crimes against humanity. Because of its unethical origins, is it also unethical to make use of the data? Scholars and theologians have debated this question and have raised a number of strong arguments both for and against the proposition. In my opinion, rather than censoring the data, measures of sensitivity towards the victims should be implemented while approaching it.

In the Nazi concentration camps, many suffered as victims of medical experiments. Nazi medical personnel conducted no fewer than twenty-six types of medical experiments using concentration camp prisoners

as involuntary human subjects.¹ The experiments included transplanting human organs, injecting individuals with infectious bacteria, sterilization, and the studying of the effects of extreme cold and pressure.² In the concentration camps, National Socialism sponsored most of the medical experiments for specific racial ideological or medico-military purposes.³

Many of the horrific experiments sponsored by National Socialism were carried out in the name of racial purity.⁴ In a quest towards a more perfect humanity during the first half of the twentieth century, Germany was preoccupied with the idea of “eugenics”—a philosophy focused on encouraging sexual reproduction for people with desired traits and reducing reproduction of people with undesired traits.⁵ Consequently, numerous Nazi medical experiments were concerned with genetics.

In particular, the study of twins was of interest in Nazi Germany's concentration camps, as its purpose was investigating the effects of heredity and environment.⁶ German doctor, Joseph Mengele, was recruited to perform medical experiments on Auschwitz concentration camp prisoners. Mengele conducted his experiments on identical twins in an attempt to genetically engineer an Aryan master race.⁷ Children

¹ Susan Benedict and Jane M. Georges, “Nurses and the Sterilization Experiments of Auschwitz: A Postmodernist Perspective,” *Nursing Inquiry* 13, no. 4 (2006): 279, doi:10.1111/j.1440-1800.2006.00330.x.

² Mark Weitzman, “The Ethics of Using Nazi Medical Data,” *Second Opinion* 14, no. 1 (1990): 26.

³ Benedict and Georges, “Nurses and the Sterilization Experiments,” 279.

⁴ David Bogod, “The Nazi Hypothermia Experiments: Forbidden Data?” *Anaesthesia* 59, no. 2 (2004): 1155, doi:10.1111/j.1365-2044.2004.04034.x.

⁵ Richard Barnett, “Eugenics,” *The Lancet* 363, no. 9422 (2004): 1742, doi:10.1016/S0140-6736(04)16280-6.

⁶ Benedict and Georges, “Nurses and the Sterilization Experiments,” 279.

⁷ Bogod, “Nazi Hypothermia Experiments,” 1155.

had their limbs amputated, were castrated, and/or had their eyes injected with chemicals in an attempt to make them turn blue. In other experiments, one twin would be injected with a disease such as typhus, then both twins would be killed and their organs compared. It is estimated that out of one thousand pairs of twins, only two hundred survived.⁸

Another type of racially motivated experiment performed at Auschwitz was directed at perfecting sterilization techniques. One of the priorities of the Reich leader of the SS, Heinrich Himmler, was to sterilize individuals who were enemies of the state, including the Russians, the Poles, and the Jews. The objective of these experiments was to create a method to ensure that non-Aryans would be prevented from reproducing while still being able to work as slave labourers. These experiments would help accomplish two major goals of National Socialism in Germany: to eventually eliminate all but the desired Aryan peoples and to provide the slave labour necessary for the war effort.⁹

Two German physicians, Dr. Carl Clauberg and Dr. Horst Schumann, were chosen to carry out the sterilization experiments in Auschwitz. Clauberg was a gynecologist who was well known for his fertility treatments. He was solicited to design a program that would sterilize mass amounts of women quickly, without their knowledge and without requiring recovery time before their return to work.¹⁰ Clauberg proposed that the most efficient method to sterilize women was to inject caustic substances into the uterus and fallopian tubes during what could pass as a routine gynecological examination. Clauberg hypothesized that he would soon be able to sterilize several hundred or even thousand women per day using this method. Schumann pursued the same goal,

⁸ Ibid.

⁹ Benedict and Georges, "Nurses and the Sterilization Experiments," 279.

¹⁰ Ibid.

but with a different technique, sterilization by means of x-rays and radiation.¹¹

In July 1942, Clauberg was given permission to use the female prisoners of Block 10 in the Auschwitz concentration camp as his experimental subjects. The sterilization experiments conducted in Block 10, intended to stamp out the Jewish race, were carried out with secrecy. Originally, Block 10 was used by Dr. Bruno Weber to experiment with blood groups and agglutination, as well as immunizations against small pox and typhus. When Weber no longer had need for Block 10, the building—along with the Weber's female prisoner-patients—was made available to Clauberg and his sterilization experiments.¹² Women who were married and under fifty years of age were sought out for the experiments. Clauberg, who fled to the Ravensbrück concentration camp to continue his experiments when the Russian army approached, is estimated to have performed his sterilization experiments on approximately seven hundred women.

The second type of medical experiments sponsored by National Socialism was conducted to enhance Nazi war efforts, the most notable being hypothermia experiments. Sigmund Rascher, the doctor responsible for the hypothermia experiments, was working toward a practical purpose: the survival of the Luftwaffe pilots who were shot down and consequently, forced to endure the severe cold of the Atlantic Ocean and North Sea.¹³ Rascher began the experiments in 1942 at the Dachau concentration camp. At Dachau, approximately three hundred prisoners were immersed in ice-cold water, or strapped naked to a stretcher and drenched in cold water in the winter air, whilst rectal

¹¹ *Ibid.*

¹² *Ibid.*, 281.

¹³ Weitzman, "Ethics of Using Nazi Medical Data," 27.

temperature, heart rate, level of consciousness, and shivers were charted and monitored.¹⁴

Rascher also conducted an experiment in an attempt to improve survival for Luftwaffe pilots ejecting at high altitudes. Rascher forced two hundred prisoner-patients into a decompression chamber then dissected some of the living prisoners' brains to demonstrate the formation of nitrogen bubbles in the cerebral blood vessels.¹⁵ Hans Eppinger performed an additional Dachau military experiment in an effort to improve the survival of pilots who were stranded at sea; for this experiment, Eppinger forced ninety Roma subjects to only drink seawater for up to twelve days.

As a result of these experiments, most of the prisoner-patients were left to die from the exposure to these extreme conditions. Nazi Germany hoped to use this gained knowledge to help save valuable, skilled pilots for further use in the war.¹⁶ Furthermore, they tended to justify these grisly experiments as contributions to the advancement of medical knowledge.¹⁷

Contrary to the unethical manner in which these experiments were conducted, before and during the Nazi era, Germany led the world in epidemiology, preventive medicine, public health policy, screening programs, occupational health laws, and informed consent for medical procedures.¹⁸ These advances in the medical field were mainly a result of a public outcry in 1892, after an experiment in which prostitutes and

¹⁴ Bogod, "Nazi Hypothermia Experiments," 1155.

¹⁵ Ibid.

¹⁶ Weitzman, "Ethics of Using Nazi Medical Data," 27.

¹⁷ Ronnie S. Landau, *The Nazi Holocaust* (Chicago: Ivan R. Dee, 2006), 187.

¹⁸ Michael Cohen, "Overview of German, Nazi, and Holocaust Medicine," *American Journal of Medical Genetics* 152A, no. 3 (2010): 688, doi:10.1002/ajmg.a.32807.

orphans were deliberately infected with syphilis to test new treatments for disease came to public attention. This outcry led the Prussian government of Germany to establish specific guidelines protecting human subjects.¹⁹ In 1900, the Prussian minister of religious, educational, and medical affairs published one of the first documents concerning the ethics of human experimentation. These guidelines directly recognized the need to protect minors and those who were incompetent, to explain possible negative consequences of the experiment, to require clear consent, to be carried out only by the director of a medical institute or by another physician under direct supervision, and keep a medical record book to state in writing how the requirements for human experimentation were met.²⁰

These protective guidelines, or 'code of conduct', remained active during the Nazi era. However, the guidelines were ignored for groups of people such as Jews, Gypsies, Slavs, prostitutes, criminals, vagrants, political prisoners, homosexuals, psychiatric subjects, the mentally deficient, the physically deformed, and those who opposed the Government of Nazi Germany.²¹ These people were not protected by the guidelines and were consequently subjected to unscientific and unethical medical experimentation. This illustrates that in an ethically collapsed environment in the face of war, a 'code of conduct' can rapidly become ideologically flexible and hence, irrelevant.²²

In response to this violation of human rights by physicians, after the war, the Doctors' Trial at the Nuremberg Military Tribunal investigated and persecuted the perpetrators of the Nazi war crimes. The Nuremberg Code, part of the Doctors' Trial at Nuremberg, was created as a set of criteria by which to judge the charges of the Nazi doctors

¹⁹ *Ibid.*, 689.

²⁰ *Ibid.*

²¹ *Ibid.*, 690.

²² Benedict and Georges, "Nurses and the Sterilization Experiments," 286.

and scientists.²³ The Nuremberg Code, drafted in 1947, established ten principles of ethical conduct required to be present for human experimentation to be justified. Foremost among the principles was the need for freely obtained voluntary consent of the human subject, that the experiment must be conducted to avoid unnecessary physical and mental suffering,²⁴ and the physicians' responsibility to benefit the people.²⁵

At the Nuremberg Doctors' Trial, sixteen of the doctors who tortured their victims were found guilty of crimes against humanity and seven of those doctors were executed. However, Sigmund Rascher, the doctor who conducted the hypothermia experiments, was not one of the convicted. He had been executed in April of 1945 for violating Nazi genetic purity laws, when he and his wife illegally adopted two children who were not from sufficiently Aryan stock.²⁶ Like Rascher, most Nazi physicians who were involved in the unethical medical experiments were never convicted in courts of law, and after World War II, they went on to continue their professional lives.²⁷ When the Nuremberg Doctors' Trials concluded, with their existence still known, the experiments were no longer an object of public attention. However, researchers have been aware of the existence of the data, and have actively utilized it.²⁸

Is use of the data from the Nazi medical experiments ethical when it was collected under barbaric, cruel, inhumane, and murderous conditions? This question is obviously surrounded by passion and

²³ Ibid.

²⁴ Alan Jotkowitz, "The Holocaust and Medical Ethics: The Voices of the Victims," *Journal of Medical Ethics* 34, no. 12 (2008): 869, doi:10.1136/jme.2008.024687.

²⁵ Benedict and Georges, "Nurses and the Sterilization Experiments," 278.

²⁶ Bogod, "Nazi Hypothermia Experiments," 1156.

²⁷ Cohen, "Holocaust Medicine," 690.

²⁸ Weitzman, "Ethics of Using Nazi Medical Data," 26.

controversy.²⁹ Before attempting to decide whether or not it is ethical to use the data gathered from Nazi experiments, such as the ones on medical treatments or hypothermia, it must first be asked if the data is useable. Did the corrupt Nazi ideology and practice infect Nazi science?³⁰ Further, can Nazi scientific research be reliable if it was conducted in an unethical manner?³¹

Many researchers argue that not only was Nazi experimental data immoral and criminal, but that it also has nothing to offer to the medical field. At the Nuremberg Doctors' Trial, Brigadier General Telford Taylor argued in his prosecution that "these experiments revealed nothing which civilized medicine can use."³² In the case of Sigmund Rascher, in addition to his hypothermia experiments, he claimed to have significant results in increasing fertility among older women. Rascher announced that his wife, who was over 48, had recently given birth to two children. It was later revealed that Rascher had faked his fertility results, and that his two children had been adopted illegally from orphanages. As a result, Rascher's Nazi superior, Heinrich Himmler, ordered him to be shot. Even Rascher's Nazi superior found the main instigator of these experiments corrupt, not only as an individual but also as a scientist.³³ Furthermore, it is also argued that even if the hypothermia experiments were conducted void of scientific flaw and produced accurate findings, the results from a population of malnourished and ill prisoners would not be applicable to the average drowning victim. This leads the scientific validity and utility of the data to be questionable at best.³⁴

²⁹ Ibid.

³⁰ Ibid., 28.

³¹ Kristine Moe, "Should Nazi Research Data be Cited?" *The Hastings Center Report* 14, no. 6 (1984): 5, doi:10.2307/3561733.

³² Weitzman, "Ethics of Using Nazi Medical Data," 28

³³ Ibid.

³⁴ Bogod, "Nazi Hypothermia Experiments," 1156.

On the other hand, some researchers do see elements of efficacy in the experimental data. Leo Alexander, the U. S. Army medical corps officer who assessed the hypothermia experiments after the war, stated that the experiments “appeared to have been conducted in a reliable manner” and “satisfied all the criteria of objective and accurate observation and criteria.”³⁵ In addition, John Hayward of the University of Victoria has claimed, “I use [the Nazi experimental data] with my guard up, but it is useful.”³⁶ Hayward has contributed to U. S. Navy research on hypothermia, including developing a “thermofloat jacket” that is now used by sailors all over the world. Hayward does not consider the specific temperatures of the hypothermia temperatures to be reliable; however, he claims that the general linear shape of the cooling curve as a person nears death appears to be consistent with the cooling curve at warmer temperature. Thus, he believes it to be valid and useful.³⁷ Another researcher, Dr. Robert Pozos from the University of Minnesota, believes that the Dachau hypothermia study is the only existing study on hypothermia that can provide information to the extent that is needed.³⁸

Although no agreement exists on the scientific worth of the Nazi experimental data, some experts have judged the data to be of value. Therefore, it cannot simply be stated that the data is corrupt and subsequently ought to be dismissed. The data exists; it has entered the field, and thus the question becomes: can use of this data be justified?³⁹

Some researchers suggest that even if the Nazi data were significantly valid and reliable, its origin should clearly put it out of bounds to the

³⁵ Weitzman, “Ethics of Using Nazi Medical Data,” 28.

³⁶ *Ibid.*, 29.

³⁷ Moe, “Research Data be Cited?,” 5.

³⁸ Weitzman, “Ethics of Using Nazi Medical Data,” 29.

³⁹ *Ibid.*

ethical scientist. This viewpoint claims that because the Nazi experiments on human beings were so unethical, it follows that the use of the results is unethical.⁴⁰ Additionally, this opinion supports that any loss that may result from not using the data would be far less important than the moral loss to medicine if the data were to be published.⁴¹

Many survivors of the Holocaust have been offended at the publication of the Nazi medical data. Auschwitz survivor, Dora Zaidenweber, suggests that “use of these data could eventually lead to justification of Nazi actions or even Nazism—the Nazis will suddenly become good guys because they found a cure for something.”⁴² Seymour Siegel, a Jewish theologian and medical ethicist, claimed that the use of the data compounds the offense, therefore making the users of the data accessories to the crime.⁴³

However, modern North American society cannot seriously be compared to Nazi Germany. Therefore, Siegel’s claim that use of the experimental data would make researchers accessories to the crime after the fact cannot be accepted.⁴⁴ Although every precaution needs to be taken to ensure that history does not repeat itself, the risks of transforming into Nazi Germany is diminished by other factors. Factors such as the open conversation that has surrounded the Nazi medical data, the search for ethical guidelines, the carefulness of researchers who initially approached the subject, and the involvement of the press who widened the discussion are all part of a process that is radically different from the Nazi process.⁴⁵ The Nazi process that was filled with

⁴⁰ Stephen G. Post, “The Echo of Nuremberg: Nazi Data and Ethics,” *Journal of Medical Ethics* 17, no.1 (1991): 43, doi:10.1136/jme.17.1.42.

⁴¹ Bogod, “Nazi Hypothermia Experiments,” 1156.

⁴² Weitzman, “Ethics of Using Nazi Medical Data,” 29.

⁴³ Ibid.

⁴⁴ Ibid.

⁴⁵ Ibid.

contempt for the rights of the experimental subjects was encompassed by secrecy. Thus, uncritical censorship of the Nazi data would raise a regrettable parallel with the Nazi process itself.⁴⁶

A. C. Somerhough, a British lawyer, maintained that this case involving massive breaches of medical ethics should be extensively publicized so that they may inspire interest in cases of a similar nature.⁴⁷ However, Paul Weindling, a historian of medicine, claims that post-war Western scientific communities have disappointingly glossed over the subject of the Nazi medical experiments in order to protect their reputations. Weindling suggests that as a result of the shame of the medical crimes, the Nuremberg Doctors' Trial marked the end, rather than the beginning, of vigorous investigations into medical war crimes.⁴⁸ Unfortunately, many records collected during the medical trial were destroyed and made inaccessible.⁴⁹ Weindling argues that a straightforward confrontation with these atrocities would have strengthened clinical research rather than undermined it. Instead of eliminating access to this research, efforts should be focused on guarantees of compensation for the victims and binding agreements on the humane conduct of medical research.⁵⁰

It can be assumed that both sides of the debate on whether or not to use the Nazi medical data mean well.⁵¹ However, the data are already

⁴⁶ Moe, "Research Data be Cited?," 7.

⁴⁷ Paul Weindling, "The Origins of Informed Consent: The International Scientific Commission on Medical War Crimes, and the Nuremberg Code." *Bulletin of the History of Medicine* 75, no. 1 (2001): 46, doi:10.1353/bhm.2001.0049.

⁴⁸ Paul Weindling, *Nazi Medicine and the Nuremberg Trials: From Medical War Crimes to Informed Consent* (New York: Palgrave-Macmillan, 2004), 342.

⁴⁹ Weindling, *Nazi Medicine and the Nuremberg Trials*, 317.

⁵⁰ *Ibid.*, 343.

⁵¹ Post, "The Echo of Nuremberg," 44.

in the research literature and cannot be unlearned. From a practical standpoint, there would be no simple way to effectively eliminate references to all unethical research, such as the 1961 Stanley Milgram experiment that examined obedience to authority, but consequently subjected participants to mental distress. If the results of all experiments that are now viewed as unethical were excluded, half of the medical textbooks would have to be discarded.⁵² Nevertheless, if the results of the Nazi medical experiments appear to be reliable and valid, and the decision to use them as a source for new research were made, the researcher must take every opportunity to explain where and how the original data was collected. By doing so, what is known is not repeated, but neither are the Nazi physicians absolved, nor are the victims forgotten or dishonoured.⁵³ Sensitively prefacing the data with explanations of how they were derived also allows readers who were unaware of the origin to view the data in their moral contest, which permits independent judgment.⁵⁴

Most importantly, through the use of this data, one must continue to learn the lessons of the moral dilemmas of the Holocaust and teach others, so that as knowledge grows, repetition of these crimes is avoided. While it is hard to believe that anything as horrific as the Nazi medical experiments could happen now or in the future, reminders of the need to obtain true informed consent, to prioritize the patient's well-being, and to provide full disclosure of the likely outcomes of experiments are crucial.⁵⁵

⁵² Moe, "Research Data be Cited?," 7.

⁵³ Weitzman, "Ethics of Using Nazi Medical Data," 33.

⁵⁴ Bogod, "Nazi Hypothermia Experiments," 1156.

⁵⁵ Adrian Reuben, "First Do No Harm," *Hepatology* 42, no. 6 (2005), 1464, doi:10.1002/hep.20995.

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