

Anti Smoking Initiatives in Nazi Germany: Research and Public Policy

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In 1939, German scientist Franz H. Muller published the world's first epidemiological, case-control study showing a link between tobacco smoking and lung cancer. Another more rigorous epidemiological study by Eberhard Schairer and Erich Schoniger in 1943 further supported this link. The Nazi regime was very supportive of anti-smoking initiatives. In addition to funding research, the government posted propaganda, passed legislation and offered medical assistance in an effort to encourage Germans not to smoke. This anti-smoking campaign was part of a public health initiative that included restrictions on alcohol and exposure to occupational contaminants as well as an emphasis on good nutrition. A number of reasons have been suggested for the government's desire to improve health-related behaviour. These include economic and strategic - medical care and lost productivity from sick workers was expensive, and Germany needed its soldiers to be healthy. Another is ideological - the Nazi government viewed alcohol, workplace pollutants, and especially tobacco as genetic poison to the pure German race. After Germany's defeat, the research linking smoking and lung cancer went virtually unnoticed by academics in the rest of the world, perhaps due to the connection between the anti-smoking campaign and Nazi ideology.

Introduction

The causal link between tobacco smoke and lung cancer is well established, and studies from the 1950s by British and American scientists such as Sir Richard Doll, A.B. Hill, Cuyler Hammond and Ernest Wynder are generally credited with this discovery.¹ Yet, the link was identified by German researchers a decade earlier, but their studies received little attention after World War II.

The German research helped spawn anti-smoking initiatives, a centre piece of a public health campaign that also targeted alcohol, nutrition, and occupational carcinogens. The rationale for improving public health included economic, military, and most importantly, ideological motives. Nazi ideology, specifically racial hygiene, is a major reason why the research linking tobacco and lung cancer went virtually unnoticed after the war.

Research Linking Tobacco Smoke and Lung Cancer in Nazi Germany

Until the sharp increase in incidence in the early 20th century, lung cancer was very rare. German autopsy records show that it represented 1% of cancer deaths in 1878, 10% in 1918 and 14% by 1927.¹ An even larger increase in tobacco consumption occurred in the latter decades of the 19th Century, with inventions such as safety

matches and industrial-scale cigarette rolling machines.² Despite the temporal correlation, doctors and researchers didn't initially recognize the link, attributing the cause of the excess lung cancer to automobile exhaust, road tar, and the influenza pandemic of 1919.

Among the first to postulate a link between tobacco smoke and lung cancer was the German clinician Schonherr in 1928 who noted that many of his female lung cancer patients were exposed to "2nd-hand" smoke.³ Other doctors, such as Fritz Lickint in 1929, noted increased frequency of smoking in patients with lung cancer.

Scientists working during the Nazi regime built on this earlier research. In 1939, Franz H. Muller published the world's first epidemiological, case-control study showing a link between tobacco smoking and lung cancer. He compared the tobacco consumption of 86 men with lung cancer to 86 healthy men (controls) of the same age.⁴ Patients with lung cancer were more likely to be heavy smokers than the control group and likewise the control group were more likely to be moderate or non-smokers than the lung cancer group.

This link was supported by a more rigorous study by Eberhard Schairer and Erich Schoniger in 1943. Questionnaires, asking about amount and duration of smoking, were sent to relatives of 195 patients who had died of lung

cancer, relatives of 555 patients who died of other cancers (mostly stomach and colon), and to healthy controls.⁴ In their analysis, Schairer and Schoniger attempted to account for confounding variables such as occupational exposure to dust. They concluded that “there is a high probability in support of the contention that lung cancer develops much more frequently in heavy smokers and is much rarer among non-smokers than expected.”⁴ Later analysis showed their results to be statistically significant with $p < 0.0000001$.³

These studies were financed by a Nazi regime very supportive of anti-smoking initiatives. At a large conference about the effects of alcohol and tobacco in March 1939, Hans Reiter, head of the Reich Health office, “charged all the medical societies of Germany with the responsibility for determining scientifically the degree to which tobacco caused disease.”³

The Nazi government’s support of research into the health effects of tobacco extended to the very top of their government. Adolf Hitler donated 100 000 Reichmarks (RM) of his personal finances in 1941 to help fund the establishment of the ‘Scientific Institute for the Research into the Hazards of Tobacco’ in the city of Jena.⁵ This institute funded the study by Shairer and Shoniger, as well as other research into the health impacts of smoking including ‘nervous disorders’, gastrointestinal function, and tobacco’s effect on the body’s potassium:calcium ratio.

Anti-Smoking Initiatives in Nazi Germany

Such research provided scientific rationale for the government’s anti-smoking initiative which included propoganda, education, legislation and economic measures. The government’s anti-smoking advertisements often used role models, most notably Adolf Hitler, an ardent anti-smoking activist. One advertisement read:

Brother national socialist, do you know that your Fuhrer is against smoking and thinks that every German is responsible to the whole people for all his deeds and

*omissions, and does not have the right to damage his body with drugs?*³

The education ministry banned smoking in schools and ordered education about the dangers of tobacco to be included in school curricula.⁶ Anti-smoking propoganda was also disseminated through the Hitler Youth, League of German Girls, and Federation of German Women. A popular slogan aimed at women was “Die deutsche Frau raucht nicht!” (“The German woman does not smoke!”).⁷ Restaurants and cafés were forbidden to sell cigarettes to women. Smoking among women was further restricted by denying tobacco-rationing coupons to women younger than 25.

Restrictions were also put on cigarette advertising – they couldn’t imply that smoking had any hygienic value or associate it with masculine or feminine imagery.³ Smoking was banned in many public places, including military barracks, government offices, workplaces and trains. Specific groups of men were also prohibited from smoking including uniformed soldiers and anyone under 18.⁶

In addition to restricting smoking and its advertising, the Nazi government implemented medical programs to help people quit. These included counselling, provision of nicotine gum, and use of silver nitrate mouthwash which made cigarettes distasteful.⁶ The government also researched ways of producing nicotine-free tobacco, and by 1940 it comprised 5% of the German tobacco harvest.⁶

The Nazi government also used economic means to limit tobacco consumption. In June 1940, the government ordered that cigarette rations for soldiers be limited to six a day⁶ and raised taxes on cigarettes to 80% in 1941.

The Nazi government’s anti-smoking campaign was part of a broader public health initiative that emphasized preventative medicine. In an attempt to limit alcohol consumption, the Nazi government used similar strategies to their anti-smoking campaign. Advertisements claimed that alcohol “was sapping the strength of the German people.”⁶

Government authorities promoted a diet high in fruits and vegetables, while encouraging a reduction in fatty foods such as meat and whipped cream.⁸ A concerted effort was made to encourage bakeries to make whole wheat bread instead of white and laws were passed that limited the use of carcinogenic additives, such as dyes, in food.

Regulations were also put on occupational exposure to toxins such as limiting the use of asbestos in factories.⁷

Just as the research into the dangers of tobacco-smoking in Nazi Germany was ahead of the rest of the world, so too were these public anti-smoking initiatives. The government's multi-pronged combination of advertising, legislation, medical therapy and economic measures is similar to the strategy used in current anti-smoking programs.

Rationale for the Public Health Initiative

A number of reasons have been proposed for the government's desire to improve health-related behaviour, including economic, strategic and ideological. Throughout the 1930s, lung cancer had risen to be the second most common cause of cancer death in German men.² By 1944, it was the most common. This rapid increase had tremendous economic impact: it was a large expense for the German healthcare system and health insurance companies, and workers' morbidity and mortality affected the bottom line of companies. In 1941, the Nazi government's accounting division estimated that smoking was costing the economy approximately RM 4 billion annually.⁶ To put this in perspective, Germany's entire military budget as it prepared for war in 1938 was only RM 16 billion. The government had a strong economic impetus to reduce tobacco consumption. Similarly, the rise in morbidity and mortality from lung cancer was a concern to the military, which needed soldiers to fight. There was also concern that smoking tobacco would affect the German soldiers' stamina and military prowess.⁷

Another important reason for the German government's public health campaign involves Nazi ideology, specifically racial hygiene. This

was a central tenet of Nazism, involving the maintenance of a 'pure' Aryan race. The racial hygienists attempted to accomplish this goal through three main avenues:

Racial hygienists distinguished 'positive', 'negative' and 'preventive' racial hygiene, encompassing encouragement of breeding among the 'fit' (eg. by marital loans and prizes for large families), limitation of breeding among the 'unfit' (especially by sterilization), and prevention of exposure to genotoxic hazards.²

Racial hygiene helps explain the Nazi government's public health policies that attempted to ban or decrease use of many potential mutagens including food dyes, asbestos, and especially tobacco smoke. In 1939, the Reich Health office commissioned studies investigating the effects of smoking on chromosome damage.³

After 1941, most of Germany's research into the health effects of smoking involved the Institute for Struggle Against Tobacco Hazards in Jena. It was founded and directed by Dr. Karl Astel, Dean of the University of Jena, head of both the Office for Racial Affairs and the Office for Public Health and Social Affairs for the state of Thuringia, a high ranking SS officer, and a leading racial hygienist.⁵ His rationale for anti-tobacco research is evident through his belief that "We cannot change our genes, but at least we can safeguard them from future damage."² Astel was also involved in other aspects of the Nazi's racial hygiene campaign including organizing the euthanasia programs that murdered over 200 000 mentally and physically disabled and was involved in organizing Hitler's 'final solution' to murder all Jews.²

Why the Anti-Smoking Research Went Unnoticed After World War II

After Germany's defeat, the research showing a link between smoking and lung cancer went virtually unnoticed by most academics. Logistics would have contributed to this:

German scientific journals were not sent abroad during the war.²

Another more important reason was that the research was done in Nazi Germany. Even though both Muller's and Shairer and Shoniger's studies were purely epidemiological, many associated all research from Nazi Germany with the atrocious human experiments carried out. The scientific community ignored much of the research, because, as biochemist James Watson explained, some thought "that good work simply could not have been done by Nazi scientists."²

Muller's 1939 paper wasn't completely ignored and was occasionally referenced in the 1950s, even in the influential papers by British and American authors such as Doll and Wynder, whose studies are generally credited with demonstrating the link between smoking and lung cancer.⁶ Yet, Shairer and Shoniger's study, which was methodologically and statistically superior, was cited only three times in the 1960s, and only once in the 1970s.² The study also went unnoticed in Germany, and failed to be mentioned in a German bibliography about the links between tobacco and cancer published in 1953.

This may have been because the study was conducted at the Institute for Struggle Against Tobacco Hazards, whose director had involvement in the Nazi sterilisation, euthanasia and murder of the Jews. Some other scientists connected with the Institute engaged in horrific human studies.²

Muller's study was completed before the conception of the Institute, and so lacks the same stigma. It also lacks Nazi ideology. For example, "race", a common theme in many medical studies from Nazi Germany, was not mentioned at all.⁶ Furthermore, Muller refers to work by Jewish authors in his study. Perhaps this is why it received some minimal attention after the war, compared to almost none for the paper by Shairer and Shoniger.

The Effect of the Nazi Government's Anti-Smoking Policies

Despite the Nazi government's anti-smoking initiatives, German tobacco consumption

continued to rise throughout the 1930s. One reason for this increase may have been that smoking was a form of passive resistance against the authoritarian Nazi government.³ In the latter stages of the war, tobacco consumption did drop considerably, but rationing and economic problems were likely the major factor.

At a glance, it appears that the Nazi government's anti-smoking initiatives were a failure. Yet, the rise in smoking throughout the 1930s was due to growth in the German economy, and it is possible that the Nazi government's opposition kept this increase lower than it would have been otherwise. Furthermore, in 1990, lung cancer mortality among German women was one fourth that of American women.⁶ As much of the anti-smoking policies were aimed at women, it is possible that the Nazi government's public health initiative is partly responsible for this reduction.

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