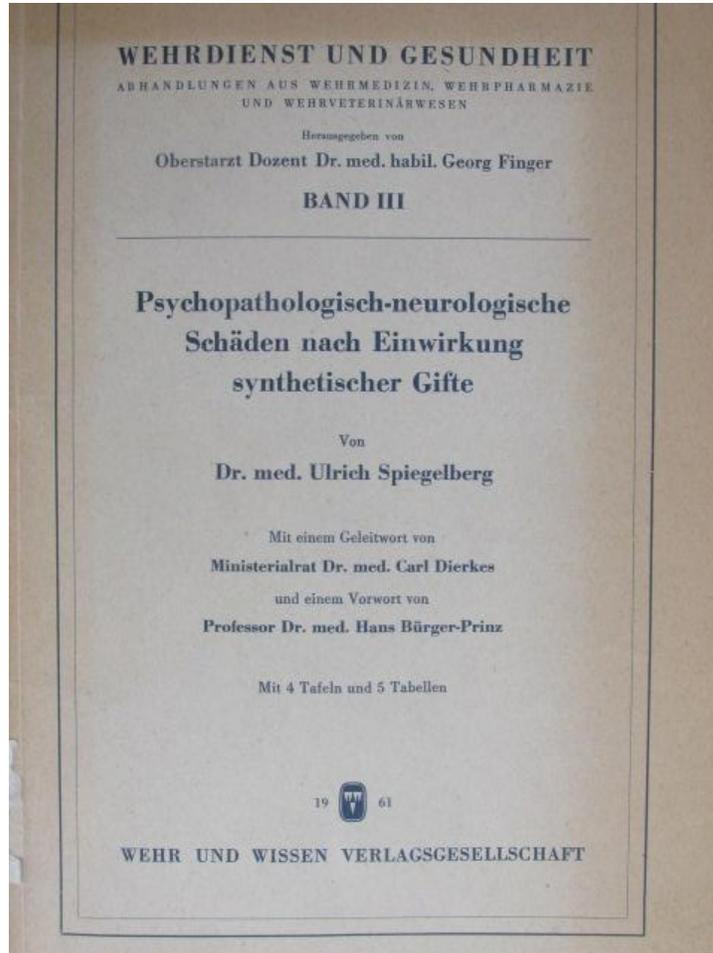


Early cases of MCS among German chemical workers (chemical weapons)



A group of 129 German workers who had been exposed to low levels of poison gasses was studied in the late 1950s. They were remarkably similar to people diagnosed with multiple chemical sensitivities (MCS).

Keywords: Multiple chemical sensitivity, MCS, history, pesticide, chemical weapons, sarin, sensory sensitivity

Chemical weapons were produced, stored and tested by the German military in the years 1935 to 1945. This took place in a facility in the small town of Munster, about fifty kilometers (30 miles) south of Hamburg.

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The weapons contained various types of poison gasses, such as sarin, phosgene, mustard gas and others.

Chemical weapons were banned by the 1899 Hague Convention and the 1925 Geneva Protocol. They were not used in Europe during World War II, but Germany and the Allies kept them available in case the other side started using them. This way they could quickly retaliate, which might be the reason they were not used even when Germany was collapsing in 1945.

During the production and testing of these weapons, the workers and soldiers were sometimes accidentally exposed to very low levels of these gases. Levels that were not considered toxic or harmful.

The exposures were either incidental or long term. This apparently included everything from small spills to ongoing tiny leaks. Most of the workers were exposed multiple times to different types of poison gasses.

Delayed health effects

The workers and soldiers did not get acutely sick – at least no more than temporarily. But in the early 1950s they started to show up in clinics with their health problems. An observant doctor in Hamburg noticed the pattern leading back to the Munster facility.

A study was organized by the German ministry of labor and social welfare.

The study of the workers

From 1956 to 1959, a total of 129 workers who reported health effects from the Munster poison gasses were tested and interviewed in a specialty clinic and at Hamburg University. They were almost all men, only three of them were women. They were mostly in their thirties when they got exposed to the gasses. None of them had a higher education. Half of them were unskilled laborers, while the rest were clerks and in various trades.

The group of 129 were selected for the study. There were more cases but no numbers given. What criteria was used to select the participants was not specified.

The fact of exposure was documented for every worker through medical reports or other forms of documentation. Every worker had already been seen by other doctors who documented the health problems attributed to the poison gas

exposures that had happened ten to 25 years before. At this time 36 percent of the workers received some sort of disability pension, while a few were old enough to receive age pensions.

The neuro-psychiatric tests were done at Hamburg University. Some of the workers were also further tested and interviewed at Dr. Spiegelberg's clinic in Hamburg.

There were no challenge tests, i.e. no intentional exposure to chemicals.

The published study is a compilation of the medical reports from each workers' physicians, as well as the studies done in Hamburg, along with Dr. Spiegelberg's own observations.

What they found

The report was published by Dr. Ulrich Spiegelberg in 1961. It was a booklet of 103 pages.

Chemical weapons were used extensively during World War I, so the doctors were well aware of their effects on soldiers who survived a gas attack. Studying people exposed to low levels of these chemicals, and for longer periods, was completely new. The doctor could not find a single such study in the medical literature.

He admitted that what they found was completely different from what was expected. A major surprise was how much the symptoms varied from worker to worker.

Most of the workers had originally sought medical help for respiratory problems, especially bronchitis. Some also had "circulatory problems," which was thought to be heart related. Then more problems developed over time.

The list of symptoms they found is very long and includes chronic fatigue, chronic gastrointestinal problems, sleep problems, weightloss, low libido and headaches as some of the more common complaints. The headaches were mostly centered on the front of the head (apparently where the sinuses are), but could be elsewhere as well.

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Neurological problems were rampant. They reported memory problems – especially remembering names and numbers. People had problems with concentration. Some had seizures or even passed out.

They reported what they called "sensory fatigue" (*sensorische Ermüdungserscheinungen*) as common, without specifying what that meant or providing examples.

They also reported heightened "sensory sensitivity" (*sensorische Empfindlichkeit*), such as to light and sound. The noise from televisions and rowdy children were given as examples. Chemicals, such as cigarettes, alcohol and prescription drugs were common problems. Three of the workers reported having seizures when incidentally exposed to chemicals.

There was a lot of commentary on the workers' mental health, as they seemed to be plagued by depressions and anxieties. Some were regarded as "moody" and even have an "explosive personality." Some were characterized as "dopey" and "confused."

Spiegelberg reported the worker's lifestyles as "withdrawn" in many cases. They tended to not join civic organizations, visit neighbors, go to the cinema or other outgoing activities as much as other people in Munster.

They diagnosed 40% of the workers as depressed. Several got other diagnosis, such as anxiety, neuroticism, etc. Only 21% were deemed fully emotionally healthy.

There was no information about the worker's mental health before they got sick to compare with. Spiegelberg speculated that some depressions could be caused by stress, especially from the war, which Germany lost. One worker he considered a hypochondriac. But there was no better explanation for most cases than the chemicals causing these psychiatric effects.

The workers' central nervous systems were tested in various ways at Hamburg University. This included electroencephalogram (EEG) and some sort of brain scanner. The type of brain scanner was not specified (perhaps it was ultrasound). Several of the workers did have abnormal brain scans, but not the majority and there didn't seem to be a consistent pattern.

The only test that stood out as significant for the group was a "flicker test," where they were exposed to a flashing light (the only other information given about this test was that it was invented in America).

The university also subjected the workers to a large number of standardized questionnaires to test their emotional state.

Commentary

The description of this group of workers fits well with what is often observed in people who have multiple chemical sensitivity (MCS).

In America, Dr. Theron Randolph was still developing his observations of similar patients and published his first book about it in 1962 (i.e. after the German study was published)

MCS was totally unknown in Europe at the time, so the doctors did not have the vocabulary to describe such patients, and the experience to ask more detailed questions.

The group of German workers had a variety of symptoms, instead of a fixed set, just as today's MCS patients (which still frustrates physicians). A lot of their problems were neurological, such as depression, fatigue, sleep problems, and sensory overstimulation. Intolerance of tobacco, alcohol and even medicines are also common for people with MCS.

What the report refers to as "dopey" may be what is now called brain fog.

Their neuro-psychiatric tests found similar problems as reported for MCS patients, such a trouble remembering names and numbers. But not so bad it resembled dementia.

A modern reader might notice three things not mentioned in the German report: problems with fragrances, pesticides and car exhaust. They are some of the most common complaints from later MCS patients.

In Randolph's 1962 book *Human ecology and susceptibility to the chemical environment*, he doesn't mention fragrances. In those days perfume was made from natural products, was expensive, and not used daily. The onslaught of cheap synthetic fragrances came later.

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The fact that many of the German chemical workers avoided movie theaters and civic organizations might be because they didn't feel well there because of perfumes (which women might use for such occasions). Or it could be because of sensory overload. Or it could simply be their depression.

Randolph does not talk much about pesticides either, as they were not used in people's homes, but only in farming. The town of Munster is located in an area called Lüneburger Heide ("heide" means moor), so there was probably little agriculture there. And in those days pesticides were not used as frequently as later.

As for traffic fumes, Randolph does mention them, as he practiced in the big city of Chicago. Perhaps traffic fumes were not a problem in the tiny burg of Munster, even though cars were a lot more polluting in the 1950s than they are today?

Since the doctors and workers were not aware that a cocktail of daily exposures could create chronic symptoms, and what was later called "masking," that may also explain why the workers were not more specific about what caused their problems, other than cigarettes and a few other things.

The chemically saturated lifestyle had not yet begun in the 1950s. Bakelite, nylon and cellophane were really the only plastics available, and they are well tolerated by people with MCS. Personal care products were simple and mostly natural. The food wasn't laced with synthetic colors, preservatives and flavoring. Buildings were made of natural materials and not sealed up.

If the workers noticed problems with people's cologne, etc., they may not have dared share such an outlandish and anti-social idea with a physician. Perhaps some did and were labeled as neurotic?

This is a very wordy report. But it would have been helpful with more details about the tests they did, especially the flicker test and the brain scans, since they showed abnormalities.

It would be very interesting to see how these 129 workers decades later reacted to modern buildings and chemical lifestyles. And then be interviewed by physicians well versed in MCS so they knew what questions to ask.

Source

Psychopathologisch-neurologische Schäden nach Einwirkung synthetischer Gifte,
Ulrich Spiegelberg, Darmstadt: Wehr und Wissen Verlagsgesellschaft, 1961.

More information

Other historic articles about MCS are available at
www.eiwellspring.org/history.html.