

The medical crisis

ESSAY

ERLEND HEM

E-mail: erlend.hem@medisin.uio.no

Erlend Hem (born 1970), MD, PhD, medical director of the Division of Mental Health and Addiction, Oslo University Hospital, chairman of the National Medical Museum Foundation and editor of the language column of the Journal of the Norwegian Medical Association.

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The term *crisis* is used in many senses in medicine. Ever since Antiquity it has been used to describe a decisive turning point in an illness, in particular with regard to infections. During the 1970s, a new usage of this term emerged. Now, it related to crises in a psychological sense. We can discern the outline of the crisis of the future; multiresistant bacteria may again mean that trivial infections might prove fatal. This may mean the return of *crises* as an ominous element of daily life.

'Down by the brook my brother had caught a disease, a dangerous disease. Now he was in bed with a high fever, shortness of breath and a rasping cough. There was no longer any doubt. It was the disease that in this remote village robbed us of our little ones, broke the adults and liberated the old – pneumonia. And the nearest doctor was thirty miles away at Tynset.

Early in the morning on the third day, just as Ola Styggpåjord was having breakfast in the farmhands' quarters, father came in, pale and distraught.

"You'd better go and fetch the doctor, Ola, right away," he said from the door.

"Is he so poorly today?"

"Yes, it's in a bad way, you see."

In this way, Jacob Breda Bull (1853–1930) described how an attack of pneumonia could be associated with terror and death in the 19th century. Bull published his short story about the horse Vesleblakken ('Little Dunnie') in 1891 (1). It is an example of his tales of everyday life in the Østerdalen valley, which are regarded as his best work (2).

The story is well known. It was reproduced in the school textbooks edited by Nordahl Rolfsen (1848–1928) and Thorbjørn Egner (1912–1990) throughout most of the 20th century (Figure 1) (3–5). The story thus became part of the Norwegian literary canon. The above excerpt is taken from Egner's adapted version (4). It was subsequently omitted from the school textbooks, and the young generation of today is less familiar with the story of Vesleblakken.



Figure 1 Vesleblakken and the doctor. Illustration by Harald Kihle (1905–97) from 1957. Figure from Thorbjørn Egner's textbook (4, page 155). Illustration © Harald Kihle/BONO

The story unfolds in the old vicarage at Øvre Rendal, Bull's childhood home. It ends with Ola and Vesleblakken travelling the thirty miles from Rendalen to Tynset, fetching the doctor in record time. On this cold winter's day, Ola drives the horse so mercilessly that it collapses and dies – but the boy is saved. Vesleblakken's heroic death has been described as one of the most tear-jerking stories in Norwegian children's literature (6), and the doctor is presented in the role of saviour:

'Next morning, when the doctor climbed into the sled that had been hitched to Brownie, my little brother had been saved. Father stood there, filled with emotion, almost with an air of solemnity.

"Well, next to God we now have the doctor to thank that we were able to keep our boy," he said and shook his hand in parting. "No," said the doctor, pulling his wolfskin coat around him, "it was Vesleblakken who saved the boy, for had I come an hour later – well, goodbye then, Reverend." The doctor drove off.'

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'And while little Johannes lay there in his first, calm sleep, pale, but breathing evenly after the crisis had passed, Vesleblakken struggled with all the pains of the disease he had caught in saving the boy's life.'

The story of Vesleblakken must have had an immediate appeal. Nordahl Rolfsen incorporated it in his textbook right away (3). He took some liberties, however – presumably in agreement with Bull. Where Bull writes about the 'crisis' that had passed, Rolfsen says that 'danger had passed' (3, p. 232). Perhaps Rolfsen thought that 'crisis' was a foreign word that the pupils would fail to understand? This seems unlikely, since his book includes many explanations of words. Moreover, at that time and for many years thereafter, *crisis* – in the sense of 'a decisive turning point in an illness' (7) – was a frightening aspect of people's everyday life.

The story of Vesleblakken is supposedly based on a real event that took place around 1860. However, although it ended well for the boy, death was looming in the shadows. Little brother Johannes Bull (1854–1862), born the year after Jacob, died when he was only seven years of age (8, 9). Death was never far away.

At that time, doctors had in reality no effective treatment to offer. This forms no part of Bull's story, however, on the contrary. The doctor says that the boy's life was saved with a margin of one hour, but this is obviously not based on reality. The doctor's job in the story was not that of a saviour, nor a healer, but to provide relief and comfort. Nevertheless, this may have been of great importance.

Infectious diseases were rampant, and there were few or no remedies available. The situation would soon turn desperate. There is every indication that the boy would have survived without the doctor's visit, and that Ola's hazardous journey was in fact quite meaningless. The bitter realisation is that Ola Styggpåjord could have driven at a leisurely pace, and *both* Vesleblakken and little Johannes could thus have been saved (10).

The development of crisis

The original meaning of the term *krisis* (from Greek: decision, judgment) has roots reaching back to the medical science of Antiquity. The medical crisis pertained to a decisive turning point at which the disease would either cause death or recede. Crises occurred on 'critical days', a specific number of days after the onset of illness. This is described repeatedly in the writings of Hippocrates (11). The *Dictionary of Norwegian Riksmål* refers to such an example from the *Aftenposten* daily (12), when in late summer 1934 the newspaper kept its readers informed concerning the German president Paul von Hindenburg (1847–1934): 'one (may) at any moment (...) expect a crisis in the president's illness' (13), it wrote. The next day he was dead.

Dictionaries still provide this definition – a decisive turning point in an illness (7). My impression is, however, that the term crisis is rarely used in this sense in medicine today. Now, reference is more often made to crises in extremely serious illness, rather than as a turning point, for example in the case of an Addisonian crisis, hypertensive crisis, blast crisis or thyrotoxic crisis.

Crisis and lysis

'We often speak of crises in various diseases,' Dr Fredrik Grøn (1871–1947) wrote in 1912 (14). In medicine, crises were primarily associated with infectious diseases, first and foremost pneumonia, in which it was referred to as the *pneumonic crisis* (15). The Hippocratic theory of 'critical days' in fevers remained in use well into the 20th century (11, p. XXXII). Today, the term is no longer used in this sense, simply because serious infections are effectively treated.

In the olden days, the doctor's primary job was to make the correct diagnosis. This would permit him to predict the natural progress of the disease. Description of the disease and its prognosis was essential and undertaken with painstaking meticulousness.

The wide-ranging Lægebog for norske hjem (Medical handbook for Norwegian homes) (1904) said that patients with pneumonia suffered from chills – 'the patient shivers and his teeth chatter' – fever, rapid pulse, headaches, rapid and shallow breathing, coughs with sparse expectoration, thirst, loss of appetite, occasionally nausea, dry, warm skin, often blurred consciousness (16). This condition would remain unchanged for 'some (4–6) days', before it would tend to resolve in a crisis, whereby the patient would fall into a healthy, dreamless sleep and sweat profusely. Thereafter the temperature and pulse would fall, and 'any other symptoms' would improve.

After a few days, the patient could be out of bed again. We recognise the description from Bull's short story. However, things could also take another course. If no improvement occurred within a week, 'the condition will in most cases be of a most dangerous nature' (16). Until as late as 1928 it was said that 'pneumonia is invariably a serious disorder', and the treatment consisted of total rest while the patient remained bedridden (17).

When the crisis came, everybody hoped for the best. In the course of one night the fever could disappear; this was referred to as a *critical* fall in temperature (18) (Figure 2a). Søren Laache (1854–1941), professor of internal medicine, referred to it as the *longed-for* crisis (19, p. 90). Since 'crisis' was such a key concept, the doctors developed further categories. *Perturbatio critica* (from Latin perturbare: perturb, bewilder) was the term used for a rise in fever that often occurred prior to the crisis (19). If the crisis dragged on, it was referred to as a *protracted* crisis (18) (Figure 2b). If the crisis progressed through several plateaus, it was an

interrupted crisis; in cases where the fever rose again after having fallen, it was called a *pseudocrisis* or *false crisis* (Figure 2c). Laache wrote that should this happen, any doctor who had been so careless as to declare that the danger was over would need to retract his words (19, p. 90). One should not breathe a sigh of relief prematurely.

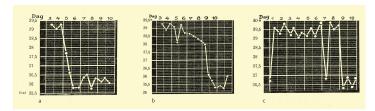


Figure 2 Examples of three forms of crisis in pneumonia (19). a) crisis with a drop in temperature on the fifth day; b) if the crisis dragged on beyond 36 hours it was referred to as a protracted crisis; and c) cases where the fever rose again after having fallen were termed a pseudocrisis or false crisis. Here we see a pseudocrisis on the seventh day and a definitive crisis on the ninth day. Illustration photo: Søren Laache/Om Varmeregulering og Feber [On heat regulation and fever]

As the opposite of crisis there was *lysis* (from Greek: dissolution), which denoted that the temperature gradually declined to a normal level over some days. A disease that showed this kind of development in temperature was typhoid fever, with its typically *lytic* decline in temperature (19).

Crisis - new usage

A new usage of the term crisis in medicine emerged in the 1970s. In its psychological sense, a crisis means that a new situation has arisen in which the stresses associated with key values threaten to exceed the ability to cope with them, resulting in mental reactions (20). For example, a disease of a specific order of seriousness will represent a crisis for many people.

Crisis reactions tend to be divided into a shock phase, a reaction phase and a reorientation phase. They all represent a challenge for patients, their next of kin and therapists (20). If a husband comes home drunk every Friday and beats his wife, this is *not* a crisis – it is a chronically difficult situation. On the other hand, the husband may experience a crisis if his wife throws him out – a new situation, key values are threatened, and the challenges may exceed his ability to cope with them (20).

This new usage has also given rise to a number of neologisms, such as *crisis centre* – Norway's first opened in Oslo in 1978 – *crisis therapy, crisis response team, crisis hotline* etc. In their wake, new professions such as *crisis psychologists* and *crisis psychiatrists* have emerged (21).

There has been some discussion as to whether the widespread use of the term crisis in the health services has eroded its meaning. What is needed for something to be referred to as a crisis? In some cases, the boundary between the ordinary problems of life and disease can be blurred. What some regard as a minor nuisance in life may be seen as traumatic by others. We can see this in, for example, the use of the terms *mid-life crisis*, *late-forties crisis* and *identity crisis*. To some, this may appear trifling, whereas for others it may represent a major burden.

Other crises

Gradually, the medical term crisis found its way 'into the general vernacular in other senses, such as economic crises', Fredrik Grøn wrote (14). From current debates we may have the impression of being surrounded by crises: refugee crisis, financial crisis, environmental crisis, government crisis.

The term is also used in a number of other disciplines. In history studies, crisis is used to describe a period of profound transition whereby old cultural forms disappear and new ones are created (22). The science historian Thomas Kuhn (1922–1996) used the term crisis to describe the transition from one paradigm to another – a paradigm shift involves a

scientific revolution. In all disciplines, the concept of crisis thus represents a high degree of seriousness. In daily parlance, however, the concept of crisis has been completely watered down. Now, we tend to speak of crisis when referring to quite common and humdrum events that may be embarrassing, awkward or just plain irritating (23): 'It's a bit of a crisis.'

We often hear that the health services are in crisis. But what crisis do we really mean by this? On top of a resource crisis, identity crisis and performance crisis, we often hear about a crisis of expectations. The latter implies that the public has exaggerated and unrealistic expectations regarding what the health services should be able to deliver (24).

The crisis of the future

Arguably, antibiotics represent the greatest single advance in medicine in the 20th century (25). These drugs revolutionised medical science when they were made available after the Second World War. This usage is no exaggeration. Mortality from communicable diseases fell dramatically, and the pneumonic crisis disappeared from medical textbooks.

The dramatic overconsumption of antibiotics has caused huge problems, primarily a proliferation of resistant bacteria. Multiresistance is becoming one of the greatest challenges to health services (26). We may risk entering a post-antibiotic era, where common infections and minor lesions may once again become fatal (27). Then, *crises* will again become an ominous aspect of our everyday lives. That will be a real crisis.

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