Medicine, Health Care and Philosophy (2021) 24:471–473
https://doi.org/10.1007/s11019-021-10053-0

EDITORIAL

Gentle medicine

Henk ten Have[1] · **Bert Gordijn**[1]

Published online: 22 October 2021

The Canadian physician William Osler is often lauded as the 'father of modern medicine'. As one of the founders of Johns Hopkins hospital, he initiated bedside clinical education. But he is also famous for the saying 'Medicine is a science of uncertainty and an art of probability' (Editorial 2010). This theme is frequently repeated in the recent history of medicine, for example by surgeon and writer Atul Gawande: "Medicine's ground state is uncertainty" (Gawande 2002, 229). There are several sources of uncertainty in medical practice: technical (due to insufficiency of adequate data), personal (due to characteristics of the physician–patient relationship), and conceptual (due to the application of general criteria to specific situations) (Beresford 1991). The uncertainty that exists in daily clinical care cannot be eliminated through advances in technology and increase of information because first, the practice of medicine always has a subjective dimension, and second, the particular has priority over the general. The generalities of scientific knowledge must be applied to the illness of a specific individual. Intrinsic uncertainty therefore cannot be eliminated from healthcare. The best practitioners can do is to deal with uncertainty. That means first to acknowledge the existence of inherent uncertainty. It next provides room for alternative assessments. Most of all, it requires collaboration with the patient to understand what values should determine care and assistance (Wray and Loo 2015).

The Covid-19 pandemic has amply illustrated the role of uncertainty in healthcare and policymaking. In the beginning of the pandemic, John Ioannidis claimed that policies against Covid-19 were based on unreliable data (Ioannidis 2020). According to him, there was no solid evidence on how many people had been infected. Ioannidis argued that most infections had been missed because of limited testing. He also maintained that the precise risk of dying from Covid-19 was uncertain. The WHO estimations at the time that the fatality rate was 3.4% was probably wrong, or so Ioannidis contended. According to him a reasonable estimate for the general population in the United States varied from 0.05 to 1%. If this were indeed true, the fatality rate of Covid-19 would be lower than for seasonal influenza and common cold (caused by other coronaviruses). Because the data was uncertain, Ioannidis argued it was unknown whether extreme measures of physical distancing and lockdowns would be effective, while their social and economic consequences were also unknown (Ioannidis 2020).

Ioannidis' publication raised a storm of protests, arguing that even with uncertainties, public health measures need to be taken in a pandemic emergency (for example, Reichmann 2020). But his publication not only emphasized uncertainties and lack of evidence. It also pointed to an ethical challenge: how do we know whether policies are beneficial or harmful? And if we do not, how are actions that impact the lives of all people to be justified? While some of the uncertainties about SARS-CoV-2 have been gradually clarified as more solid evidence was obtained, it cannot be denied that uncertainties continue to persist. This not remarkable since controversies and uncertainties are common in science. In the context of the pandemic, policymakers as well as scientific advisory bodies are concerned to avoid mass panic. Even when the evidence for their recommendations is weak, they tend to be optimistic about future solutions such as widespread testing and the development of vaccines. Differences of opinion are not welcome, and scientific disagreement is discouraged, especially in public. Deliberations of advisory bodies are secret, so that the various arguments and justifications for recommendations are not apparent. Initially, there is a high level of self-assurance among experts. Later, alternative teams of experts are operative, publicly questioning the recommendations of the official expert bodies that advice governments. In general, expert recommendations are not unanimous. Politicians on the other hand use scientific opinion to justify the measure they want to implement anyway. Comparative analysis of policy responses shows that countries where experts have the initiative do not perform better

✉ Henk ten Have
tenhaveh@duq.edu

[1] Duquesne University, Pittsburgh, USA

in managing the pandemic than those where politicians have the leading role (Baldwin 2021, 9ff. and 168–169).

The awareness that uncertainty is intrinsic in health care and that medical prognostications are not always reliable is strengthened by a current movement to be more critical and sceptical towards modern medicine and its accomplishments. Critical studies emphasize that most published research findings are false. Many scientific studies make claims that are exaggerated and false positive (Ioannidis 2005; 2011). In fact, an appeal is made to return to medical nihilism: we should have little confidence in the effectiveness of medical interventions (Stegenga 2018). The methods of medical research are 'malleable' even in evidence-based medicine. They do not produce clear-cut results, but they are the outcome of choices made at different stages: design, execution, analysis, interpretation, publication and marketing. Most medical studies are sponsored by pharmaceutical industries so that enormous financial incentives tend to favour positive results. Many studies show the link between the source of funding and the results of research. Instead of critical and independent scientists, many ghosts phenomena are at work to produce favourable outcomes or suggest effectiveness with the purpose to create new markets for medication (ten Have 2022). Rigorous scientific assessment shows that many diseases are not treatable and that numerous medical interventions are ineffective. Critical analysis demonstrates that the benefits of medical interventions are systematically overestimated, and the harms systematically underestimated (Stegenga 2018). The conclusion is that we should have low confidence in the effectiveness of medical interventions.

Jacob Stegenga (2018) blames the overestimation of the benefits of medicine on the belief in 'magic bullets'. Penicillin and insulin are very specific and effective drugs. Medical research promises more of those drugs. But in fact, magic bullets are exceedingly rare in today's medicine. Nonetheless, belief in them is sustained by two factors. One is commercial: they are relatively easy to produce and distribute. They can also be patented and generate huge profits. The other is political: they are much easier interventions than alternative measures such as lifestyle changes and socio-economic interventions. The bizarre irony is that although magic bullets are rare, they are the driving force for many grandiose projects and enormous financial investments. Medicine, according to Stegenga, should be less aggressive and gentler: what we need is fewer medical interventions, more lifestyle interventions, and more care (Stegenga 2018; Ehrenreich 2018).

In this issue, Gabriel Andrade and Maria Campo-Redondo (2021) develop a proposal for a 'gentle medicine' and its implications. Major crises such as a global health emergency amplify uncertainties and instigate reflection and criticism of existing practices in science and society. At the same time, the authors follow a long tradition of critical appraisal of medicine and healthcare, in the footsteps of Fleck, Illich, McKeown, and Foucault. They point out various deficiencies in medicine as it is currently practiced: overtreatment, overdiagnosis, methodologically flawed research, overestimation of beneficial results of trials, underreporting of negative outcomes, and disease mongering. These shortcomings are often the result of aggressive interventions, boosted by military language. War metaphors are also dominant in the struggle against Covid-19, with heavy emphasis on hospital and intensive care treatment. The authors conclude that less medicine is needed, with less aggressive treatment, more restrictive diagnoses, and reduced prescription of medication. A gentler medicine should move away from overtreatment and the search for cures towards "a human approach of dignified treatment in doctor-patient relationships" (Andrade and Campo-Redondo 2021). Interestingly, they also point to concerns familiar from the discourse of global bioethics: a focus on social inequality, environmental concerns, and apprehensions about commercialization of medical practice and research. The experiences with the Covid-19 pandemic may therefore reiterate the need for a broader bioethical perspective.

References

Andrade, G., and M. Campo-Redondo. 2021. The need for 'gentle medicine' in a post Covid-19 world. *Medicine Health Care and Philosophy*. https://doi.org/10.1007/s11019-021-10046-z.

Baldwin, P. 2021. *Fighting the first wave. Why the coronavirus was tackled so differently across the globe*. Cambridge: Cambridge University Press.

Beresford, E.B. 1991. Uncertainty and the shaping of medical decisions. *Hastings Center Report* 21 (4): 6–11.

Editorial. 2010. Uncertainty in medicine. *The Lancet* 375 (9727): 1666.

Ehrenreich, B. 2018. *Natural causes. An epidemic of wellness, the certainty of dying, and killing ourselves to live longer.* New York/ Boston: Twelve/Hachette Book Group.

Gawande, A. 2002. *Complications. A surgeon's notes on an imperfect science*. New York: Picador.

Ioannidis, J.P.A. 2005. Why most published research findings are false". *PLoS Medicine* 2 (8): e124.

Ioannidis, J.P.A. 2011. An epidemic of false claims". *Scientific American* 304 (6): 16–17.

Ioannidis, J.P.A. 2020. A fiasco in the making? As the coronavirus pandemic takes hold, we are making decisions without reliable data. *STAT;* https://www.statnews.com/2020/03/17/a-fiasco-in-the-making-as-the-coronavirus-pandemic-takes-hold-we-are-making-decisions-without-reliable-data/.

Reichmann, J.P. 2020. Letter to the Editor Re: Coronavirus disease 2019: The harms of exaggerated information and non-evidence-based measures. *European Journal of Clinical Investigation* 50 (5): 13224.

Stegenga, J. 2018. *Medical nihilism*. Oxford (UK): Oxford University Press.

Ten Have, H. (2022) *Bizarre bioethics. Ghosts, monsters and pilgrims*. Baltimore: The Johns Hopkins University Press.
Wray, C.M., and K.L. Loo. 2015. The diagnosis, prognosis, and treatment of medical uncertainty. *Journal of Graduate Medical Education* 7 (4): 523–527.