

What Would Hippocrates Say?

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"First, do no harm -

Second, revere the healing powers of nature"

The phrase above has historically been attributed to Hippocrates, the 'Father of Medicine' who is credited with revolutionizing medicine in Ancient Greece. Fielding Garrison, an authority on medical history, states in his landmark text *An Introduction to the History of Medicine*, "He is, above all, the exemplar of that flexible, critical, well-poised attitude of mind, ever on the lookout for sources of error, which is the very essence of the scientific spirit". Hippocrates believed that the body must be treated as a whole and not a series of parts, and that "natural forces within us are the true healers of disease".

The Hippocratic Oath, though in many ways outdated for the ways of modern medicine, does still provide the basic ethical premise and principles by which physicians practice medicine.

But I wonder what Hippocrates would say ... if he were to be a casual observer of the world we live in now. Let's begin with the aforementioned quote ...

"First, do no harm". Given that our clinical and physiological research now gives us great insights into the true mechanisms of disease, I would wonder what he would say when faced with the application of this knowledge today. In the face of the scientific literature, outdated and purely anecdotal methods are practiced - and though there may not be "evidence of harm" one would have to wonder about the "evidence of benefit". There is a subtle (but significant) difference here.

Add to this the fact that many illnesses and conditions have their own self-limiting natural history (the common cold and most cases of low back pain being two key examples) - and will resolve of their own accord. In effect, at times the patient is simply being entertained while they get better on their own! Does the "placebo effect" constitute a plausible treatment intervention? Does ignorance of the literature constitute "harm"?

But if we're going to look at the mechanisms of disease, we must then examine the related issue of causation versus correlation - and trying to fix that which may not need fixing. For example, it is possible for someone to have a naturally elevated cholesterol level. If you walk in and have your cholesterol checked, is it high because a) that's just the way you are, or b) it relates to a potential risk factor or disease process? They may correlate - but one may not necessarily cause the other. That being the case, do you throw medication at the high cholesterol even if it's not related to any specific mechanism? Or in another scenario, use medication as a first line of defense against the high cholesterol (when there are many other lifestyle issues that could relate to the underlying mechanisms)?

A similar issue is being noted when using an MRI as an assessment tool for back pain. Up to 70% of asymptomatic people will have an abnormal MRI of the lumbar spine. Thus, if you were to view an abnormal MRI on it's own, would it tell you that the person definitely has pain? In 70% of the population, the answer would be no. Thus if you see an MRI that is abnormal, can you specifically relate asymmetries to an underlying mechanism of disease?

The issue of causation and correlation once again goes back to Hippocrates' first statement. Is "causation" not being confused with "correlation", thus leading the practitioner down a perilous diagnostic slope? If that happens, then any

factor of error is magnified - and decisions related to this diagnosis (i.e. treatment interventions) may in fact be misguided relative to the underlying mechanisms (or lack thereof). Do most clinicians even consider the variance between causation and correlation?

Hippocrates himself once noted that "there are, in fact, two things: science and opinion; the former begets knowledge, the latter ignorance".

"Second, revere the healing powers of nature". The human machine has the mechanisms to adapt to training stimuli, and will always provide an appropriate response to a stimulus given an appropriate environment in which to do so. We must acknowledge that although everyone is not identical, the mechanisms by which we function are! Look at the diseases of our era - those that are having the greatest impact on the health of our society as it ages. Obesity and heart disease are but two examples of conditions that respond favorably to education regarding "the healing powers of nature". Lest I remind you of Hippocrates' words again - "If we could give every individual the right amount of nourishment and exercise, not too little and not too much, we would have found the safest way to health."

It is interesting to note that, according to Fielding Garrison, "after the Hippocratic period, the practice of taking clinical case-histories died out".

So what would Hippocrates say to all of this? Before we ask him, let's email Hippocrates a link to the Cochrane Collaboration - www.cochrane.org - and let him view the unbiased reviews of the current scientific literature and let him draw his own conclusions. I have no doubt he'd wonder why we don't pay attention to the patient - and those simple healing powers of nature. Remember that this is the same person that established the Hippocratic oath - for ethics in the practice of medicine. Of course, perhaps I am rather presumptuous in saying this - remember, he lived in a time of blood letting - an acceptable form of treatment in his day.

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