



"The data will see you now": digital literacy in the medical profession

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I recently attended a talk titled "Can you trust your doctor to have your best interest?". The speaker was a prominent biohacker who shared his experience of dealing with stress by becoming more in tune with his body through tracking stress levels using an ear monitor, testing his vitamin levels and identifying high-risk genes. He quoted an encounter with a GP in which he had noted an elevated level of homocysteine in his body, an amino acid linked to inflammation, (1) which received little attention from the GP; in fact, the GP didn't know whether it could be routinely tested.

The merits of this biohacker's claim will not be discussed further, but there is no doubt that one of the major trends in medicine has been an increase in patient involvement and engagement in healthcare which has shown to improve patient outcomes. Another is increased digitalization. The marriage of these two is a unique arrangement facilitating patients to take control of their own health.

While we can hardly expect to regularly treat prominent biohackers, just like biomarkers, it is a warning sign for what is to come. As patients become more tech-savvy and have access to data and technology that isn't routinely used in clinical settings, they will demand solutions to their ailments that are based on the findings from these resources. As a medical student nearing the end of medical school, I fear we are woefully under-prepared for this future.

Increasing access to information enables patients to ask more relevant and focused questions; we shouldn't take this as an affront to our knowledge, but as a blessing in providing better care. However, trust is based on a mutual respect for competency: patients should recognize the expertise of doctors, and doctors should recognize that patients are the experts when it comes to their own body. As trust in healthcare professionals continues to decline, (2) it would be unsurprising to predict that this trend will persist. As patients embrace the digital

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revolution in healthcare, the medical profession needs to keep pace.

We are simply not taught to work with these digital tools in medical school. Even in an age where artificial intelligence is being adopted in every sector of medicine, we receive little to no training in its fundamentals. In regard to biohacking and bioinformatics, we similarly receive minimal education in their applications and potential.

I am not convinced that tenured professors will be willing to learn the language of digital health; but we should at least be teaching it to the next generation of healthcare professionals. In fact, previous studies have also demonstrated that 'medical students desire broader training in informatics. (3) Digital health education is an untapped investment in the future of healthcare professionals.

So, here is my call to action: update the medical curriculum to reflect the digital reality that we live and work in. Help us attain a level of digital literacy that helps us provide the best possible care to our patients. We owe it to ourselves and more importantly, we owe it to them.

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