Short Communication

**Un-digitize sleep if you don’t want nightmares**

Mihai Nadin*

Institute for Research in Anticipatory Systems, University of Texas, Dallas, USA

For the maintenance of machines and other mechanical devices, the more you can measure, the better. For the maintenance of life, meaningful data is essential. This understanding is not yet integrated in the views and practices of medicine. Digitizing the way to better sleep health [1], is a worrisome example. The article documents, though inconclusively in the absence of data, progress in what the authors describe as non-invasive measurement using a “digital biometric sensor.” But it completely misses the most important aspect of any form of measurement: to measure is to disturb. Ivan Illich [2], used the notion of iatrogenesis—harm induced by making patients consume so-called preventive therapies, by exposing them to means and methods that result in clinical harm, or by excessive interventions. Medical practitioners are aware of the confounding nature of measurement (blood pressure is the notorious example).

Peddlers of all kinds of devices compete with peddlers of pharmaceutical products in medicalizing the healthy, as some of those in medicine have pointed out. The push comes not at the urge of the practicing physicians, but rather as a result of the industry’s attempt to close in on the largest market (e.g., persons suffering from bad sleep are a subset of this market) for their gadgets. We measure not because the understanding of factors contributing to health require more data, but rather because we can, even if we do it rather primitively.

Sleep health is extremely important. Take a headline such as “Sleep Apnea may increase risk of developing Alzheimer’s disease [3],”—echoed by the National Sleep Foundation. Now associate these clinical findings with the snake oil of “personal digital devices could potentially capture...data that could be connected to clinical outcomes....” The cascade of “could” assertions associated with “potentially” (a “could” in disguise) reveals the disputable aspect of such assertions. All the supplements sold over the counter are in the category of “could” and “potentially.” There is, of course, evidence that apnea can kill. Never mind the consequences of sleep disorders for cardiological conditions and cognitive impairment. A bad night’s sleep can be the first signal for a variety of possible pathologies.

Still, generalized monitoring in itself, as ingenious as it can be, does no more than generate yet another record that very few individuals (if any) would ever examine, not to say understand. And it creates yet another addiction, expressed as orthosomnia [3]. Sleep is part-and-parcel of the integrated process through which life is expressed. The digitally enhanced reductionist obsession with uninterrupted data acquisition can return only one answer: the extent to which humans are mechanisms. Informed by chronobiology, medicine knows better, and integrates anticipatory aspects of sleep [4,5]. We don’t sleep in reaction to the world but in preparation for our future activity. Better sleep health requires not more measurement and more data, but rather the minimum: the meaningful. Sometimes a good night’s sleep is exactly the outcome of disconnecting from the world, not of getting wired until choking in data representative of the past but not addressing the future. The various gadgets used to excess are one cause of bad sleep. One recent headline says it all: That Sleep Tracker Could Make Your Insomnia Worse.

The blue screens that invaded our lives have already affected too many people wishing for a good night. Those physicians who advise the gizmo industry should, in my opinion, refrain from becoming peddlers of the same.

References
