

# *Nature*

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*Richard M. Rosenfeld*

Philosophy is an infrequent topic in these pages, but the letter below warrants a brief foray. One reader contends that modern medicine, and the biomedical journals that are its bully pulpit, are obsessed with studies about treatment. You be the judge after perusing the exchange that follows.

## **Letter to the Editor:**

I am writing with a simple plea to balance the Voluminous articles about treatment in your journal with a modicum of information about nature and caring effects. Let me explain.

Although I was once a busy surgeon, my most satisfied and grateful patients were often the ones I helped avoid unnecessary drugs or procedures. Similarly, I found myself deriving great pleasure from wise and restrictive intervention, in contrast to the polypharmacy and gizmo idolatry that has seduced many of my colleagues. The power of explanation and “information therapy,” as I like to call it, have become the most potent weapons in my healing arsenal.

I am by no means a therapeutic nihilist, acknowledging there are clearly times where judicious surgery and prescribing improve quality of life, or even save lives. But we have strayed from the path of evidence-based practice, overlooking or trivializing the potential harm caused by sloppy diagnosis, over-prescribing, and loose Surgical indications. Equally disturbing is a parallel disinterest in nature’s foremost medical contribution, spontaneous improvement or resolution of disease. Whenever natural history is mentioned in an article, it is usually too vague for utility or couched in uncertainties about how little is known.

Thank you for considering my plea. I appreciate whatever you can do to rekindle the perception of physicians as healers, not only treaters, who relish the gifts of nature, and foster the humanistic aspect of medicine that has thrived for millennia.

Emphatically yours,  
Kimberly Kindheart, MD  
Nature Nook, USA

## **Editor’s Response**

Dr. Kindheart’s plea might be answered if journal authors chanted a few, simple words before putting pen to paper: “The physician is Nature’s assistant.”<sup>1</sup> This terse, yet piercing, phrase was – remarkably - put forth by one of the most pompous, bombastic, and self-aggrandizing individuals in the history of medicine: Claudius Galenus, physician to Marcus Aurelius and Roman gladiators. If even Galen could grasp this concept nearly 2,000 years ago, then surely Some hope remains for physicians today.

Galen's sound bite builds on the Hippocratic writings, which constantly emphasized reliance on nature. The physician's chief role was to establish optimal conditions for natural forces in the body to achieve harmony and health. Surgery was focused on restoring what could be helped, based on past experience, but leaving alone conditions that were unlikely to benefit: "As to diseases," cautions Hippocrates, "make a habit of two things; to help or at least not to harm."<sup>2</sup>

A cursory search of the medical literature, however, suggests the advice of Galen and Hippocrates is long forgotten. For every one article about natural history of disease in MEDLINE since 1950, over 100 articles were published about treatment or intervention.<sup>3</sup> A similar aversion is found to articles about harm or adverse events, for which the corresponding ratio is 57 to one.<sup>4</sup> Doing *something* is clearly preferred over doing nothing, and untoward results are underemphasized. These trends have remained stable over the past 50 years.

Why are physicians hesitant to rely on Nature? Maybe it's the ease of prescribing versus explaining, especially when combined with the insatiable public appetite for quick fixes and magic bullets. As Osler suggested, "The desire to take medicine is perhaps the greatest feature which distinguishes man from animals."<sup>5</sup> Or maybe the fundamental human love of bells and whistles makes the gadgetry of modern gizmos increasingly irresistible. A new term, gizmo idolatry, describes a willingness by physicians to accept, in fact to *prefer*, unproven, technologically-oriented medical measures.<sup>6</sup>

Overemphasizing treatment effects robs Nature of credit due and trivializes potential harms. Improvement *after* therapy differs from improvement *because of* therapy, and only well-designed trials can distinguish the latter from the former. More than 150 years ago, Jacob Bigelow, a renowned physician and botanist, observed, "It is a common error to infer that things which are consecutive in the order of time have necessarily the relation to cause and effect. It often happens that the last remedy used, bears off the credit of having cured a disease, whereas in fact the result may have been owing to the act of nature uninfluenced by any of the remedies."<sup>7</sup>

Would it surprise you that most individuals with acute sinusitis, frequent tonsillitis, or middle-ear infections show marked improvement with complementary and alternative medicine (CAM), as do some patients with vertigo or impacted ear-wax? Not if you perused the scarce, but readily available, literature showing that Nature as sole "therapy" has an impressive track record.<sup>8-12</sup> This record, however, is often buried in cohort studies or control groups from randomized trials, which are much less plentiful than research on treatment effects. Even if completely devoid of efficacy, CAM will still offer encouraging results to many patients with the above conditions, based on Nature alone.

Being "Nature's assistant," in Galen's words, means first appreciating the relative contributions of natural history and active treatment in restoring health, then creating an atmosphere – or *placebo response* – that allows both to achieve maximum impact. The placebo response may be defined as "a change in the body that occurs as the result of the symbolic significance which one attributes to an event or an object in the healing environment."<sup>13</sup> A placebo response is most likely to occur when a healing encounter includes:<sup>14</sup>

1. *A meaningful explanation*: the patient is listened to, allowed to express all concerns, allowed to ask questions, and receives a satisfying explanation tailored to his/her personal needs;
2. *Care and concern*: the healer and staff are compassionate, demonstrate an obvious desire to help, spend adequate time with the patient, and care about the patient as a person, not just an illness or symptoms; and
3. *Mastery and control*: the patient achieves an enhanced sense of control over the illness or symptoms, or feels that others, whom they trust, have control over the problem.

The placebo response differs from the traditional definition of placebo as an inert substance or sham procedure. In contrast, a placebo response can be triggered by any nonspecific event during a clinical encounter that has symbolic or psychological importance for the patient. Common examples include words, touch, gestures, local ambience, and social interactions.<sup>15</sup> These “caring effects” have been central to all cultures throughout the history of medicine, long before drugs, surgery, and technology became primary disease combatants.<sup>16</sup>

An ironic backdrop to the rise of therapeutics is the drop in caring effects alluded to by Dr. Kindheart. In *How Doctors Think*, Jerome Groopman convincingly describes how snap judgments, stereotypical thinking, and new technologies may hinder accurate diagnosis.<sup>17</sup> Every clinical encounter has an inevitable core of uncertainty, regardless of how many gizmos, technological marvels, or years of experience the clinician brings to bear. One way to manage uncertainty is by caring for, and communicating with, the patient as a unique human being, viewing tests, research, and experience as partial solutions to a complex diagnostic equation.

Many agree that caring effects dominated the history of medicine through the early 19<sup>th</sup> century.<sup>18</sup> Until this time, most favorable outcomes resulted from a placebo response, with active treatments – such as cupping, bloodletting, and purging – often causing harm. The subsequent rise of statistics, epidemiology, and fair tests in studying disease has seduced organized medicine into a quantitative delirium, culminating in the modern day obsession with practice guidelines and evidence-based medicine. Why bother to communicate with patients as human beings when enough tests, research, and number crunching will solve any problem? Unfortunately, medicine remains an uncertain science, and the time-tested effects of caring and communicating remain as relevant, if not even more relevant, than in centuries past.

What can be done to bring caring effects and natural history back into the management paradigm? First, editorials will hopefully focus attention and clarify that as editor, I am warmly receptive to manuscripts about humanism, caring effects, and patient satisfaction in medicine. These may be submitted as reviews, research, or correspondence (letters or commentaries). Second, *I encourage all authors to shun a myopic focus on intervention and give equal stage time to harms, adverse events, natural history, and spontaneous resolution.* Finally, judicious peer review can promote clear and balanced writing that embraces Nature and chastises delusory certainty.

By no means do I wish to end this editorial by suggesting that evidence, guidelines, and clinical trials be superseded by warm, fuzzy discussions of Nature, placebos, and caring effects. These concepts, however, are not mutually exclusive, and the best care is likely to emerge from a skillful blend of best evidence with caring, humility, and behavior that engenders a placebo response (as defined above). A great biomedical journal would offer similar balance in serving its readership.

What better way to conclude than with J.M. Brallier's update on Hippocrates and Galen: "You and your family must clearly understand that the great and ultimate healer is always nature itself and that the drug, the physician, and the patient can do no more than assist nature, by providing the very best conditions for your body to defend and heal itself." The best conditions, of course, include not only relevant, high-level evidence, but also a humanistic approach that empowers the patient with maximum benefit and minimal harm. Just think what can occur by tempering the technology or our time with the wisdom of the ages.<sup>19</sup>

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