Editors Need to Deliver Better Science

Editors of nursing journals were recently challenged to do a better job. Ben Goldacre, one of the keynote speakers at the International Academy of Nursing Editors (INANE) conference in London in early August, suggested that we could greatly improve how we deliver scientific information to our readers. Goldacre is a physician, academic, broadcaster, and science writer, whose mission is to debunk poor evidence and false claims made by journalists, drug companies, and politicians. Editors, he admonished, should promote new treatments and ideas only if warranted by sound scientific data.

GOLDACRE’S BACKGROUND

Goldacre’s mission is simply to set the record straight about what good science is, and how a great many of the supposedly scientific articles about health care are seriously flawed. For one decade, he wrote regular columns for the United Kingdom newspaper, The Guardian. He has also written for the London Times, The Telegraph, The New York Times, and the British Medical Journal. His first book, Bad Science (Goldacre, 2008), was an immediate hit, becoming number one on the non-fiction charts for months. More than one half million copies have been sold worldwide. Because Goldacre did not anticipate such a wide readership, his book contains “British-ese,” which would confound non-Brits. For instance, he uses “bung them” for grouped, “stitch-up” for contrived, and “cracking on” for going on (Goldacre, 2008). His style is very down-to-earth and funny.

His second book, Bad Pharma: How Medicine is Broken, and How We Can Fix It (Goldacre, 2012), is a more in-depth documentation of problems in medicine, particularly missing trials. When randomized clinical trials could have easily been performed, he shows that shoddy shortcuts and misrepresentations about the data occur regularly. In the process of documenting poor research designs, he provides clear, short lessons and reminders about what constitutes good science.

His third book, I Think You’ll Find It’s a Bit More Complicated Than That (Goldacre, 2014), is a collection of his columns and papers published in newspapers and journals and delivered at conferences and conventions. He is a broadcaster and entertainer, so these pages are filled with stories that have delighted audiences and produced gales of laughter.

Currently, he is a Research Fellow in Epidemiology at the London School of Hygiene and Tropical Medicine and a Senior Clinical Research Fellow at the Centre for Evidence-Based Medicine at the University of Oxford. Ben is a co-founder of AllTrials, a campaign by collaborators, such as physicians, academics, pharmacists, and the public, to prevent clinical trial results from being withheld from health care professionals and the general public.

WHAT IS BAD SCIENCE?

Bad science is ignoring the consensus built over decades by researchers about how to conduct a proper study. Goldacre provides reminders about the processes that scientists must execute to test theories adequately and publish them fully. He has pages documenting
Beyond his cautions and “be wary” messages about bad science, he also makes the point that well-meaning people, giving apparently sound advice from their own experiences, sometimes get it wrong. Benjamin Spock is one such example. His record-breaking best-seller, Baby and Child Care (Spock, 1946), told parents that their babies should be placed on their tummies to sleep. When he wrote this, he had no idea that subsequently crib or cot deaths would be attributed to this position. This small error resulted in thousands of infant deaths, by various estimates (Chalmers, 2001; Goldacre, 2008).

Goldacre mentions the Cochrane Collaboration several times, providing a thorough synopsis of its origins and how it works. Careful sifting of existing data, systematic reviews, and meta-analyses produce information that saves lives (Goldacre, 2008). Muir Gray, a public health physician, noting that advances in saving lives was the fact that clean, clear water became a reality in the late nineteenth century, ventured to say that: “...in the twenty-first century we will make the same advances through clean, clear information” (Goldacre, 2008, p. 99).

Goldacre entwines common sense expectations and beliefs as he debunks pills prescribed, sometimes made only of sugar, as placebo efforts. For instance:

We know that two sugar pills are a more effective treatment for pain than sugar pills, not because the salt-water injections have any biological action on the body, but because an injection feels like a more dramatic intervention. We know that the colour of pills, their packaging, how much you pay for them, and even the beliefs of the people handing the pills over are all important factors.” (Goldacre, 2008, p. 37)

How color influences how pills work is a fascinating part of this story. Drug companies spend more money on research and development of marketing strategies than they do on the actual development of drugs. As a result, stimulant medications tend to come in red, orange, and yellow tablets or capsules. On the other hand, antidepressant and tranquilizer medications tend to be blue, green, or purple (Goldacre, 2008).

### IT’S A BIT MORE COMPLICATED THAN THAT...

This phrase appears frequently throughout Goldacre’s (2008, 2012) first two books. Although his approach is to be simple and clear as he explains bad science and the atrocities by bad pharma, he takes care to point out that the analysis of situations is always more complicated than it would seem after a first look. His latest book (Goldacre, 2014) uses the above heading as its title. Approximately 400 pages, the book is arranged as snippets from his columns and lectures. These snippets can be read individually, making selections from the fascinating titles, including “Kids Who Spot Bullshit, and the Adults Who Get Upset by It”; “The Stigma Gene”; “A New and Interesting Form of Wrong”; and “Pornography in Hospitals.” My personal favorite is “How Do You Know?” I make this query often when I write to prospective authors, telling them that their manuscript needs serious revision. I am always amazed at the controversial statements writers make, as if they were conclusive facts.
AFTER THE Q & A

Goldacre, having challenged us to do better jobs when we report science and evidence-based articles, asked: “So, other than not doing enough so far as science and stats go, what exactly do you do?” As he was autographing his books that I purchased, I asked if he really wanted to know the answer. In response to his enthusiastic “Of course!”, I said, “For our readers, we separate the darkness from the light.” Puzzled, he questioned: “And exactly what does that mean?” I answered, “At the risk of sounding a bit biblical, we bring events, facts, and issues that are in the dark for our readers, and shed light on them.” “Like what?” asked Goldacre. “Like my recent editorials [Smoyak, 2016a,b], when I suggested that nurses challenge rather than coddle patients, students, and families. Or when I asked if they knew the new alphabet soup, such as LGBTQ, cis, TGNC, or DSD. In other words, there is more to life than science and stats.” His response was: “OK. Good point. Just call me Ben, the Reductionist.”

REFERENCES

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