Editorial

Stop Overtreatment, Overdiagnosis, and the Medicalization of "Normal" to Improve Health Care Outcomes. *Hippocrasy*: The Book

Abstract: In the 21st century, physician adherence to the Hippocratic Oath "to treat the ill to the best of one's ability" may require improving our entire health care system. As a result of a wide range of problems, including but not limited to overtreatment, overdiagnosis, inattention to warmth and sympathy, and medicalizing normal, as well failure to attend to prevention, treating the problem, and recognizing what is not known, efficient care delivery and best outcomes may be compromised. A recent book, cleverly titled *Hippocrasy: How Doctors Are Betraying Their Oath*, courageously calls out evidence of hypocrisy in the health care status quo and, most importantly, includes proposals suggesting how health care might be improved. While the book would benefit from more balance and less bias, improving patient outcomes is a worthwhile goal that readers of *Arthroscopy* inevitably share.

Hippocrasy.

What an arresting book title.[1]

Hippocrasy is a clever amalgam combining the name Hippocrates and the word hypocrisy. Hippocrates, the classical Greek "Father of Medicine," is remembered most for his Oath, sacred to physicians, which can be concisely summarized as the mandate "to treat the ill to the best of one's ability."[2] Hypocrisy, as defined by Oxford, means "claiming to have moral standards or beliefs to which one's own behavior does not conform."[3] Combining the two seems a blend of the sacred and profane.

Hippocrasy, the book, is provocative.

[Editor's note: This editorial was primarily drafted by and reflects the experience of Editor-in-Chief Lubowitz. Going forward, I will write in the first person.]

Discovery

I discovered *Hippocrasy* when I invited the book's first author, Australian rheumatologist Rachelle Buchbinder, to write an editorial commentary on the article, "Physical Therapy Combined With Subacromial Corticosone Injection Is a First-Line Treatment Whereas Acromioplasty With Physical Therapy Is Best if Nonoperative Interventions Fail for the Management of Subacromial Impingement: A Systematic Review and Network Meta-analysis,"[4] which appears in this issue of *Arthroscopy*. The commentary, which follows the article in the current issue, is strongly worded and adamant, as summarized by the commentary title, "Arthroscopic Treatment Should No Longer Be Offered to People With Subacromial Impingement."[5] Regarding the article and the commentary, readers can form their own opinions.

At any rate, in follow-up to soliciting and accepting the commentary for publication, Dr. Buchbinder made me aware of her book. I expressed interest in reading and reviewing the book, and Dr. Buchbinder sent me an autographed copy. [Editor's disclosure: I received this book as a gift from Dr. Buchbinder, whereas the book (without autograph) is available at Amazon.][6] My plan was a book review, not an editorial, but when the book arrived, I changed my mind because…

I Wanted to Hate This Book

Before the book arrived, I was excited to read it. I expected to like it and to learn a great deal. But when it arrived, the tables turned.

I wanted to hate this book. As a doctor, how could I not? While I found the title captivating, I was disturbed by the subtitle: "How doctors are betraying their oath."

Wait. What?

Next, on the back cover, in bold letters, and at the very top: "Two world-leading doctors reveal the true state of modern medicine and how doctors are letting their patients down."

Were they talking about me? About we (who have taken an oath to follow Hippocrates and whose practice is to avoid hypocrisy)?

In addition to being rather offended, I was disappointed that these scholars would be parties to

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hyperbole. It felt as if they were trying to sell books with statements that would never pass peer-review.

As similar statements are found throughout the text, a criticism of *Hippocrasy* is that the authors are tendentious. They have their point of view: in their own words, "we've ended up with a health care system that's one of the greatest threats to human health," and they are sticking to it. While the book chapters are supported by "(r)eferences and further reading," the book would be strengthened if the authors presented both sides of the story. However, the perspective in *Hippocrasy* is not balanced, and the book could have been more effective if the authors were not so clearly inflammatory and extreme; they publish statements that go beyond the medical and lay literature and beyond credibility: "a health care system that's one of the greatest threats to human health" indeed. Nevertheless…

I Appreciated the Book

I wanted to hate this book, but when I read it, I appreciated it. I found aspects to be eye-opening and thought-provoking, and I learned a great deal. To the authors' credit, they avoid sanctimony. Unless one questions the sincerity of the authors' premise that we need to deliver more "efficient and effective health care,"[1] readers will not find the book moralizing, and my impression is that the authors' passion for ensuring that patients are treated as best as possible is sincere.

If one can get past the overstatement and one-sided approach (not an easy ask), the arguments are compelling and generally sound. The authors present ample evidence to support their thesis. Concepts such as "overtreatment, medical harm, overdiagnosis, and the medicalization of 'normal'"[1] are not often considered by health care providers or their patients, and the book well illustrates that these problems both exist and are pernicious.

I breathed a sigh of relief as the authors clarified: "we are not suggesting for a minute (that) doctors are malicious or deliberately advising ineffective or harmful treatments. Many doctors remain unaware of the criticisms and continue to act in *good faith*…"[1] Sadly, my relief was short-lived as they continued: "…while contributing to the problem…We're suggesting that doctors who base their practices on what's commonly accepted, or on what they perceive to be effective, are often, unknowingly, wrong. And that's bad for everyone."[1]

Wait. What?

We are unknowingly wrong, but wrong nonetheless? Are they calling us ignorant, naive, or even both? That's vexing. Yet despite myself, I acknowledge that the authors raise concerns worthy of consideration.

Hippocrasy and Arthroscopy

Mercifully, from my point of view, arthroscopy was not the primary focus of the book. Nevertheless, at this point readers could posit what was written about knee arthroscopy and shoulder acromioplasty.

Yet, even readers with the wildest of imaginations and who have carefully studied the paragraphs above might be taken aback to learn that of knee arthroscopy, *Hippocrasy* states "it actually provides no actual benefit."[1] In this case, I offer no "rather": this is wrong.

While the authors are likely speaking about the fact that knee arthroscopy has been shown to be no better than placebo for advanced osteoarthritis and degenerative meniscus tears, their failure to qualify or explain their blanket statement demonstrates a lack of precision indicative of bias. Moreover, suffice it to say that the trials demonstrating inefficacy of knee arthroscopy in patients with degenerative knees are not without bias.[7-12] Maybe these authors believe that a book allows a lower standard of prudence than peer-reviewed medical journals, but a book by "two world-leading doctors" on the "true state of modern medicine" should represent the scientific evidence with scrupulous accuracy.

Again, however, there is a counterpoint. While reading a section, "Knee Arthroscopy: A Treatment Whose Time Has Passed" (untrue!), in a chapter named, "Science Matters" (true), I was dismayed by the authors' imprudence, and my scientific thoughts turned to a study David Appleby and I published in *Arthroscopy* in 2011. In "Cost-Effectiveness Analysis of the Most Common Orthopaedic Surgery Procedures: Knee Arthroscopy and Knee Anterior Cruciate Ligament Reconstruction,"[13] we prospectively followed my knee arthroscopy (and anterior cruciate ligament reconstruction) patients for 2 years and measured health-related quality of life using the Quality of Well-Being (QWB) Scale, which is a general, patient-reported outcome measure used for cost-effectiveness analysis, both pre- and postoperatively. QWB improved in my patients, and we found that both knee arthroscopy and anterior cruciate ligament reconstruction are "very cost-effective," and the results "are robust (relatively insensitive) to variations in costs or outcomes."[13]

"Knee arthroscopy: a treatment whose time has passed"?[1]

Untrue!

"(K)nee arthroscopy (is) no more effective than placebo or exercise therapy for most conditions"?[1]

Wrong. However…

Neither Placebo nor Control Group

Appleby and I did not study placebo.[13] Nor did we study exercise therapy. We showed that knee arthroscopy was more cost effective than many medical treatments. But we neither investigated, nor showed, that it was more effective than no treatment.

Reading *Hippocrasy* makes me poignantly aware that we included no control group. While I strongly believe that if I performed the study again, and included a placebo control, knee arthroscopy would result in better clinical outcomes, I do need to consider, as Buchbinder and Harris write[1]:

> *"We tend to treat everyone the same—there are no controls—so it's not possible to truly know whether any observed improvement in an individual patient is actually a result of our treatment or would have occurred anyway, or with a different treatment…*
>
> *"People find observational evidence very compelling. It's common for doctors to claim that more objective, experimental studies aren't required because they 'know' the treatment works…*
>
> *"Doctors and patients can also be fooled into believing that the treatment has worked because many health problems… are self-limiting…People… improve…*
>
> *"People usually seek medical help when their complaint is at its worst. For example, if you have recurring, fluctuating knee pain, you might go to the doctor when it has become intolerable. Chances are, the next time you see your doctor you will be better because your complaint is never* always *at its worst. This is called 'regression to the mean' or the tendency for extreme measures to go back to the average over time.*
>
> *"Another issue is placebo effects, sometimes called 'contextual' effects. In some trials, up to 60 percent of the benefit that was observed could be explained by contextual effects, from such things as having an expectation that the treatment is going to work and having a caring believer in the treatment prescribing it. Contextual effects are also greater when you have more investment in the treatment working. If you paid a lot of money to get the treatment, for instance, you will be more ready to believe it works. Studies have shown that more invasive treatments, like injections or surgery, have a much greater placebo effect than taking a pill…*
>
> *"When surgeons see… improvements after performing knee arthroscopy for their patients with degenerative knees, it seems logical to them that the improvement was a direct result of their treatment. Because of the logical 'shortcuts' humans make, observational evidence is very compelling for surgeons."*[1]

Point taken. I have not proved that the QWB Scale scores of the 2-year postoperative knee arthroscopy patients included in my study would have been lower without surgery. I had not really conceived of this possibility before I read *Hippocrasy*. While I believe that our patients were very carefully selected and indicated, and had failed a trial of nonoperative management, and while I thus believe that it *was* knee arthroscopy that resulted in their improved 2-year postoperative QWB…maybe, just maybe, the surgical intervention was not the cause of their improved health-related quality of life.

Hippocrasy Has Strengths and Limitations

Hippocrasy is imperfect, but it is instructive. As mentioned already, while I am greatly dissatisfied that the academic physician authors would fail to mitigate against hyperbole, and while I believe the book would have benefited from a more balanced perspective, I am appreciative of the effort to improve health care outcomes and the lofty goal of improving our entire health care system. It takes courage to call out hypocrisy in the status quo.

Hippocrasy Identifies a Broad Range of Problems and Suggests Potential Solutions

Having touched briefly on the general thesis of this book, and the emphasis on the importance of controlled trials, it is important to emphasize that the book covers a wide range of topics, including but not limited to overtreatment, overdiagnosis, lack of warmth and sympathy, recognizing what is not known, treating the problem, prevention, medicalizing normal, and, notably, "healing," which the authors present as a synonym for solutions. Here, the authors deserve praise. It is easy to point out problems without advancing solutions. The authors do not take the easy way out.

Surgery, The Ultimate Placebo: A Surgeon Cuts Through the Evidence

Hippocrasy made me aware of another book. Apparently, *Hippocrasy* co-author Ian Harris, an orthopaedic surgeon, has "highlighted the lack of evidence for many treatments used in…surgery in particular (in) his previous book, *Surgery, The Ultimate Placebo: A Surgeon Cuts Through the Evidence*, published in 2016."[14]

Wait. What?

No way.

As *Arthroscopy* readers understand, a placebo is a "harmless pill, medicine, or procedure prescribed more for the psychological benefit than for any physiological effect."[15] As a surgeon who has personally been a

surgery patient 10 times as a result of sports-related trauma and overuse, and who has had 10 excellent outcomes, I'm quite positive that surgery is *not* a placebo—"ultimate"[14] or otherwise.

Conclusions

In conclusion, while I anticipate that it would make me uncomfortable to read *Surgery, The Ultimate Placebo*—as I was uncomfortable reading *Hippocrasy*—in the end, reading *Hippocrasy* opened my eyes. The book sharpened, expanded and even changed my thinking. It was not a waste of my time. The book is about us and thus merits editorial consideration. And, right or wrong, balanced or biased, the authors do propose solutions and suggest how health care might be improved to the benefit of our patients. Ultimately, this, is a worthwhile goal that all readers of *Arthroscopy* inevitably share.

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