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ETHICS CASE
Presenting Unwelcome Research Findings
Commentary by Steven J. Ralston, MD, MPH, and Hilda Bastian

Dr. Andreas nervously tapped her foot as she presented to her attentive specialty society audience. A practicing ob-gyn herself, Dr. Andreas was a doctoral student in health policy at an academic health center who, for the past several years, had been working on a study comparing vaginal births with c-sections in two neighboring towns. Now she was presenting the results of her soon-to-be-published work to the physicians whose patients had made up the study groups, and she was not sure how they would receive the implications of her findings.

"According to the data," Dr. Andreas concluded, "there are no statistically significant medical, social, financial, or other demographic differences between the women in the two towns who were part of this study. Yet women in the first town were three times more likely to undergo c-sections when delivering their children than women in the second town, after age of the women, which pregnancy this was, whether or not a c-section had preceded this pregnancy, and the clinical course of pregnancy and fetal development were controlled for," she says.

"But then what explains the difference?" asked an audience member.

"Well, that's the fascinating part," said Dr. Andreas excitedly. "The difference must lie not in the patient characteristics or clinical indications for the sections, but somewhere else—perhaps in patient preferences, perhaps in physician training and choices."

"It sounds like you're questioning our judgment," a physician from the first town interjected. "Why would we willingly expose our patients to a more invasive and risky treatment? There must be a difference between the two patient populations."

"Data analysis finds no significant correlation between the incidence of c-section and any clinical or demogr—"

"Well then your analysis must be wrong," someone interrupted.

Dr. Andreas was convinced this data had value for clinical decision making, not to mention for health care costs and policy, but she was not sure of the most effective way to present it to the physicians whom it affected.

Commentary 1
by Steven J. Ralston, MD, MPH

This case raises a clear ethical issue: do individual physicians have a responsibility to monitor quality metrics and, if so, from where does that responsibility stem? It also raises a practical question: how to impart quality improvement data in a way that will lead to substantive and beneficial changes in patient care?

The ethical question is best understood, I think, through the lens of professionalism. What is it about medicine, the law, engineering, education, and other "professions" that distinguish them from other fields of employment? Certainly, any employee in any job can display professional and unprofessional behavior: human beings can act poorly in almost any setting. What distinguishes the fields we refer to as the professions, though, is a devotion to service and accountability [1].

Medicine as a profession entails a commitment to excellence in patient care that goes beyond our own self-interest in competing in the marketplace. Yes, we will be less competitive if we practice bad medicine, but our reason for practicing good medicine should be about doing what is right for our patients, not about protecting our market share. This is the core of beneficence: our actions should have as their goal the improvement of the patient's health status. Furthermore, our ability to provide beneficent care is contingent upon our recognizing and understanding what care actually *is* in a patient's best interests. Some of this requires delving into the particulars of our patients' needs and desires, understanding them as full human beings. But beneficent care is also predicated on knowing what works and what doesn't work: we must endeavor to practice evidence-based medicine whenever possible.

This includes being open to the evidence, even when we don't like what we hear. The physicians in this case displayed a variety of reactions to the data being presented to them. Some were appropriately inquisitive: "But then what explains the difference?" This ethic of self-reflection and a desire to understand and expand our knowledge base is crucial to our profession's commitment to excellent patient care. It is the defensive response of "It sounds like you're questioning our judgment" that reflects a narrower, self-interested, more self-protecting attitude that does not serve the profession well. The whole purpose of quality improvement activities is to ensure that the care we provide is, indeed, the best possible and that the systems within which we are functioning are conducive to that. It is certainly an understandable human reaction to feel defensive in the face of such challenges—many of us have experienced this at any number of morbidity and mortality conferences when our patients have been discussed—but it is imperative that we rise above it with a modicum of humility and ask the tough questions: why did this happen and what can we do to avoid it in the future?

It is important, of course, to remember that the backdrop to this case is the rising rate of cesarean sections in the United States, which has increased from 21 percent in

1996 to 32 percent in 2007 [2]. Furthermore, US hospital data reveal extraordinary variation in cesarean section rates from 7 percent to 70 percent [3]. Obstetricians are under pressure from a variety of sources—insurance carriers, hospital administrations, peer review, threats of malpractice—that may affect their decision making regarding cesarean sections. This is a fascinating and problematic epidemiological phenomenon that is incompletely understood at present, but it is imperative that the profession take it seriously, attempt to tease apart the various factors that have led to this increase, and continue to question these reasons to find ways of addressing them.

So what is the best way to broach this topic with obstetricians or any other group of clinicians whose practice patterns seem to be outside of the desired norm? This is the practical question engendered by this case that, for cesarean section at least, has been addressed in the literature [4]. The evidence, I think, calls for a combination of approaches. First, an approach that looks at institutional systems will often be more fruitful than looking at individual doctor behavior. For example, addressing a labor unit policy of not allowing trials of labor after cesarean section (TOLAC or vaginal birth after cesarean, VBAC) will have a larger impact on cesarean section rates than addressing an individual practitioner's decision not to offer trials of labor in his or her practice. Other quality improvement techniques such as standardizing labor and delivery protocols are also effective.

Second, making it personal will often backfire. The approach of "Why does hospital A have a higher cesarean rate than Hospital B?" is likely to be more effective than "Why does Doctor A have a higher cesarean rate than Doctor B?" The latter will often be met with defensiveness and a digging in of heels. Within a hospital, it is probably more effective to publish anonymized cesarean section rates for each practitioner while giving the individual doctors their own rates so they can see how they compare with the department as a whole. That is not to say that there is no role for monitoring or correcting individual behavior; when a clinician's practice pattern falls outside of the standard of care, it is the responsibility of the department or institution to address and correct this.

Finally, the parties involved have to have some stake in the outcome and a reason to care beyond a lofty appeal to medical professionalism. Sadly, this may require sticks rather than carrots. The goal may be to reduce the cesarean section rate at your hospital because the perception—sometimes based on publicly available data—is that your rates are too high and that, to maintain your share of the market, these rates need to be lowered. Financial motivators are powerful: tying Medicaid reimbursements to elective induction rates was successful in Minnesota in reducing these inductions [5].

In summary, both individual practitioners and institutions need to be committed to providing excellent care to patients, and this will always require self-reflection and humility. An ongoing commitment to quality improvement is the first and most important step in reaching this goal.

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Commentary 2
by Hilda Bastian

We expect medical professionals to be empirically minded—their views shaped by evidence, not opinion. Clinical researchers are even supposed to be able to approach experimental work with what ethicists call "equipoise": genuinely testing a "null hypothesis" without any bias.

But people rarely are totally open-minded or free of prior certainties. And being the bearer of bad tidings is never really smooth sailing. People tend to be critical of results they don't want to believe—while glossing over the most blatant lack of rigor in studies that confirm their biases.

As Dr. Andreas found out, clinicians aren't an exception to the tendency to see negative results as implied criticism. It's best to go into any research or evaluative exercise with an eye to the worst-case scenario. Better to be overprepared and not need the precautions than to be ambushed as Dr. Andreas was.

Especially if you work in a controversial area, try to make sure you have colleagues the community trusts involved well before the end of the process. They will be invaluable if the going gets rough.

Walking into a specialty society presentation alone with soon-to-be-published unwelcome findings is like walking into a lion's den. If you are in that situation, then you need to have prepared your talk and any materials you bring well. If it's going to be published soon, those who are implicated in your findings may well feel betrayed and cornered. It's better if they feel like their concerns can still have an influence.

Go carefully through the methodology, making sure those in the audience know the things you have in common with them, and try to put yourself in their shoes. They have a lot at stake—not as much as the patients in their care, but a lot. You may be excited about your findings but, if it's bad news to your listeners, speaking excitedly about your data isn't going to make them feel as though their reputations are in safe hands. Demonstrate your concern by picking your words carefully with their sensitivities in mind.

I've upset a lot of people with the results of some of my research. And I suspect that, even if you've done everything right, there is still going to be serious rough and tumble. It can take us time to understand and come to terms with our own unexpected findings, and those whom our findings affect more directly will certainly need time for that. Understanding that, and exercising as much patience as you can muster, can help.

Convincing everyone isn't generally a realistic goal when presenting findings others may not be happy to hear. Achievable goals for this kind of encounter may be to ensure some people really grasp the research, to gain at least one influential ally, and to keep communication channels open.

Hilda Bastian has been the editor of a clinical effectiveness resource, PubMed Health, at the National Institutes of Health since 2011. Her research interests have included the effects of communication on health care and systematic reviews of health care effectiveness. She has a blog called *Absolutely Maybe* at *Scientific American.*

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