

## Gizmology

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"For a successful technology, reality must take precedence over public relations, for Nature cannot be fooled."

~ Richard P. Feynman

Chiropractors have always been fascinated with and reliant upon technology, perhaps because the profession has grown up alongside Wilhelm Roentgen's X-ray, also born in or around 1895. Some devices may diagnose or demonstrate clinical progress; other devices treat; and still others may both diagnose and treat. In addition, there dwells deep in the chiropractic imagination a promise of a technology vindicating chiropractic's method and value. But the accretion of chiropractic evidence is the slower and less glamorous process of asking the right questions and answering with the right science.

Whiz-bang gizmos will not deliver chiropractic to a wider audience, but they help shape its future, for better or worse. Ultimately, chiropractic will thrive or wither on the altar of efficiency and effectiveness. You cannot hide from an efficient future by "going cash." And theory without scientific testing is speculation. So, unless technology adds to your care by reducing health care cost and improving quality, you simply can't afford the equipment or the difficulty it brings to your reputation and your profession.

Clinical results (i.e., data) are compelling; technologies, not so much. To me, the whole point of chiropractic is to provide a low-technology alternative to high-technology medical care. The more chiropractic tries to imitate medicine and dentistry by substituting technology for touch, and the more chiropractors strive for technical - rather than scientific - "proof," the further the profession drifts from the chiropractic offering of more health (and sooner) for the buck.

So, when the tech salesperson in a tight skirt and sweater came calling about the latest and greatest Stretchometer or Applied Kryptonite Infuser - with a free lease, big percentage and more money than you could ever make in your miserable little life, and more time with your family while working 20 hours a week, I listened, of course. Here yet again was an opportunity for my "still small voice" to catch me: *But what if I want to work 40 hours or even more per week, because I love my work so much it energizes me? Evenings and weekends with my family are plenty enough.*

The response: "Our research shows every single patient is better after six weeks," or "We know it works because you make more money to serve more patients," or "Developed by a medical doctor," or "Developed at NASA." I dare not ask for research, but I would settle for plausibility: "How does this Kryptonite Interferometer reduce inflammation while promoting fibroblastic while reducing osteoclastic activity?"

With questions such as that, the possibility for a group hug was over. The flame under the sizzle without a steak was extinguished quickly by my uncooperative request for cold facts. We both

considered the advantages of charging hundreds of chiropractors hundreds of dollars for a continuing education seminar to make the sales pitch: 1) pre-qualified leads; 2) better audience control through peer pressure and shouting down proof-mongers; and 3) \$30,000 and change. For me: I could slip out the door when she handed out the contracts.

Many times I have parted with hard-earned money for low-risk, "risk-free," and *no risk* risks - and could not so much as roust a return phone call, let alone get my "risk-free" refund. I leave the table on page 20 for your summary study and amusement. Consider these as general guidelines for your exchanges with the purveyors of miracles and financial independence.

But Will It Help My Patients?

Seller Assertions

Help more patients.

Better than last year's gizmo.

Has more frequencies and amplitudes.

*Our* research shows...

Good for everything.

All patients better after six weeks.

Makes you more money.

Developed by a medical doctor.

Developed at NASA.

Justifies care.

Published in a major medical journal.

Clinical certainty.

Just look at all these references.

Too good to be true.

Buyer Responses

Indications and contraindications, *please*.

How much better - earlier discharge, less disability, and sooner back to work?

And so - what?

How surprising is that?

But no thing is ever good for everything - except maybe nothing.

But who isn't better after six weeks?

ut must I "sell it?"

If it is so good, why aren't they using it?

Not much good news coming out of NASA these days; glad they are finally focusing on chiropractic.

So, I can release patients sooner?

*The Uzbekistan Medical Journal of Applied Aura Reading and Astrology?*

Truly remarkable - the first time in the history of medicine and science. And the Nobel prize goes to...?

But they are on your Web site, not clinical studies, all in Japanese, etc.

I totally agree.

If I bought a brand new Kryptonite Infuser (just like the old Ruminator, only faster), it had to be kept busy to pay for itself. Moreover, measurement issues, sensitivity, and specificity kept getting in my way of purchase. Once again, education was constipating my mind. Though annoying to some clinicians, finding lesions that are really there and confidently saying lesions are not there makes for good doctoring - the glue of integration.

Then there is that 20-hour workweek. If that were true - if all my obligations could be met in 20 hours, and the other 20 were *mine, baby* - the down payment on that sailboat would be a cinch. My innate fear and greed (yes, fear and greed also are innate) were piqued. Like the managed care pitch: "We know you have a few hours a week to see more patients." Your ship - or sailboat - had arrived. Once you signed on to managed care, the guy down the street did, too. And the race to the bottom was off and running.

How About Just Doing a Good Job?

Chiropractors deserve much more recognition for the services they provide. But any health care treatment pales in comparison to patients taking better care of themselves. When chiropractors impel and inspire patients to change and keep changed, they win the war on disease as best as it can ever be won. In the end, we all die, and chiropractors can comfort and improve life and lives. But whatever new and expensive device adds to care may be minimal and possibly even antithetical to independent living - the most basic definition of good health.

Natural healing is no longer news. Osteopaths, naturopaths, Chinese medicine doctors,

homeopaths, acupuncturists, and our integrative medicine medical brethren at the University of Arizona, where I spend time, all agree: It is better to let our innate tendency for healing lead the way and give it room. It is possible that chiropractors held the space in the public imagination for them all to grow into.

I bet chiropractors help more people "on the spot" than any profession. How many medical patients feel immediately better after an office visit? Very few. But for some reason, that is not enough for some chiropractors. They gotta have stuff.

A Future in Gizmos?

The additional clinical improvements from *new and improved* chiropractic technologies may seem impressive and still not effect better health care worth paying for. Know that efficiency and data are the keys to the kingdom, if not kings themselves. Testing, treating and extending care should improve outcomes, not incomes.

Say a gizmo gave a 10 percent improvement over the normal 15 percent change in health status after three weeks of care - a relative 1.5 percent improvement over "regular" chiropractic care. And say you bought a \$1,000 gizmo to effect that change. One thousand dollars to gain 1.5 percent extra improvement is \$667 per percent of change to be better than the next chiropractor. But now you are not better than the next guy, because you do too much and charge too much for a negligible clinical improvement. All of this assumes a new gadget or technique even has clinical data. Today, many "new improvers" only point to stuff that already works as their own research; then they modify what works and claim it must work better. Ya folla?

Let's say you pay \$30,000 to improve patient care (outcome, not income). Assume also this new device is guaranteed to improve over the standard clinical approach by a relative 10 percent - a generous assumption for the "data-challenged." That relative improvement in care costs \$20,000 for each 1 percent improvement. Even distributed across your next hundred patients, that's \$200 more in charges per patient. How can that be justified in a profession that says it gets stuff out of the way so healing can commence? When do chiropractors get out of the way?

If we "get to" charge an additional \$500 to \$2,000 or more per case by treating longer than necessary, with more tests or devices, the improved clinical effect would have to be very, very large to expect reimbursement - perhaps on the order of 50 percent per visit. But then the patient would be done with care in a week. See the problem? Chiropractic has a kind of efficiency already built in; it helps without overtesting and overtreating. "Adding" to peak effectiveness has nowhere to go but down.

In 1992, Shekelle, et al.,<sup>1</sup> suggested spinal manipulation had a 34 percent advantage over all other treatments after three weeks of back pain care. Bumping this up an additional 10 percent improves clinical effectiveness to 37.4 percent. That additional 3.4 percent that you charge \$500 to \$2,000 more for is not worth getting caught in the crossfire between patient and payer; or depositing on the function of Applied Beta Beaming in reducing nerve interference and improving recovery from work or automobile injuries.

Stick with your hands, your head and your heart. Throw in an Activator and a Cox table - something with its own research, for God's sake. Anything faster, harder, slower, deeper, with more amplitude and more frequency is mostly more money in someone else's pocket and less in yours. Plus, you have to sell the damn thing; either over and over to patients, or finally on eBay. The road to professional oblivion is lined with gizmos and paved with good ideas without clinical data. Any improvement over last year's model, or the competition's new and improved one, can only be:

- no more effective than last year's ineffective model;
- unproven to be more effective than last year's effective model; or finally,
- just barely more effective than last year's model, and thus not worth it.

No cure for cancer here. No blockbusters. No Nobel Prize. The chiropractic clinical effect will always be what it is, plus or minus a few percent. This is because healing is always just what it is, plus or minus a few percent, and then we organisms get on with our lives. Some technology may help reduce error and uncertainty - maybe a little; and is even less likely to impact health outcomes in an observable fashion.

That, grasshopper, is why we still need clinicians.

Make musculoskeletal care your center of gravity. Get a few reliable and simple tools to help. Introduce yourself to your medical colleagues. Most of all, advise patients in self-care. Get people well fast. You win, patients win, and chiropractic has a bright future.

### *Reference*

1. Shekelle PG, Adams AH, Chassin MR, Hurwitz EL, Brook RH. Spinal manipulation for low-back pain. *Ann Int Med* 1992;117:590-598.

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