

Hands Licensed to Kill

Written by Linda Rosa

Wednesday, 24 December 2008 00:00

It's hard to keep bad ideas down. With the recent publication of an NCCAM-funded study, Therapeutic Touch (TT) — where nurses wave their hands above their patient to manipulate their "human energy fields" — seems to be trying to revive its early glory days with a return to the petri dish. When Bernard Grad (McGill University) claimed plants fed healer-treated water produced extra chlorophyll, TT's inventor and NYU nursing professor Dolores Krieger set out to see if laying on hands could do the same to hemoglobin (1975). That launched TT's invasion into nursing as the profession's premier quackery.

TT would go on to produce over two decades of unconvincing clinical trials before young Emily Rosa dealt the practice a body blow in 1998 when she published the results of her experiment testing TT's basic tenet that TT practitioner's could detect the human energy field (now redubbed the "biofield") with their hands. (For a description of Emily's findings, see [QuackWatch](#) [h](#)

Fast forward ten years. A team at the University of Connecticut, led by cell biologist Gloria Gronowicz, publish the results of their study that had gone fishing for any statistical evidence that TT might have an effect on human cell cultures. The NIH's National Center for Complementary and Alternative Medicine (NCCAM) dished out \$250,000 of tax-payer money for a "study" with an absurd premise and without any testable hypothesis.

The results of this (pilot) study were divided up between two journals, with different author line-ups:

Gronowicz G, Jhaveri A, Clarke LW, Aronow MS, Smith TH. "Therapeutic Touch Stimulates the Proliferation of Human Cells in Culture," *The Journal of Alternative and Complementary Medicine* . April 1, 2008, 14(3): 233-239.

Jhaveri A, Walsh SJ, Wang Y, McCarthy M, Gronowicz G. "Therapeutic touch affects DNA synthesis and mineralization of human osteoblasts in culture." *J Orthop Res*. 2008 Nov;26(11):1541-6.

To the casual reader, this may give the impression of two separate studies -- and perhaps even

the impression of that all-important step of independent replication.

In this study, three registered nurses, each with more than five years experience practicing TT on patients (they also passed a "TT screening test" at UC's Health Center), treated cell cultures as they might a human, for a total of ten minutes at a time. They "centered" themselves, and with their hands four to ten inches away from "the area of interest," did an assessment of the culture's biofield, "unruffled" that imagined field, and continued to treat the culture with "positive intentions." In the JOR paper, the practitioners additionally reassessed the cells before ending the session.

Control cultures came out of the incubator for the same time, and "selected experiments" used placebo or sham TT treatments by people unfamiliar with TT who were taught to go through the motions of TT while counting backwards from 1000 (to keep them from accidentally intending anything positive towards the cells). While the assessments of culture growth were blinded, there is no mention that the TT nurses were blinded to the type of cells put before them, e.g. normal vs. cancerous.

RESULTS

The JACM article concluded that "a specific pattern of TT treatments produced significant increase in proliferation" of three types of human cells in culture. That "specific pattern" was their finding that four ten-minute sessions of TT in two weeks resulted in significantly increased growth rates. But numerous lesser or greater doses of TT failed to produce significance (see box).

No Significance

Fibroblasts:

2, 3, 4 times in one week

6, 8, 10 times in two weeks

Tenocytes:

2,3 times in one week

6, 8 times in two weeks

Osteoblasts:

2,3,4,5 times in one week

6, 10 times in two weeks

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Significance

Fibroblasts:

5 times in one week

4 times in two weeks

Tenocytes:

4 times in one week

4 times in two weeks

Osteoblasts:

no times in one week

4, 8 times in two weeks

The researchers therefore concluded that the proliferation effect of TT is likely dose related, but not in the usual way we think about dose-related treatments, where larger doses can cause more harmful effects. With no hypothesis to test, researchers were free to cherry pick the data for desirable conclusions.

Meanwhile, to explain away some good showings for the cultures receiving sham TT, the researchers suggested that the real TT practitioners "may have conditioned the room so that the sham treatment cultures were affected." Apparently any such conditioning didn't extend to the controls - or to any other organisms in the room. Were there bigger flies or mice around the lab? Did the research assistants need bigger shoes by the end of the study?

More interesting to skeptics are the data selected for publication in JOR, a real peer-reviewed journal. There the researchers compared TT's effect on normal human osteoblasts (bone cells) and with cancerous bone cells. The study concluded that by several measures that TT appears to increase human bone cell proliferation, while decreasing the growth of the cancer cells. In other words, the "positive intentions" of the TT practitioners helped the normal ("good") cells and harmed the cancer ("bad") cells.

Aside from the serious concerns critics can have over this study's protocols and selection of appropriate measurements, and how TT proponents will doubtlessly use this much touted study to try to re-establish TT within nursing, there are at least some fun aspects for skeptics.

MUSINGS

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First, TT proponents might be alarmed to realize that in studying TT's effects on cells and not whole people, they are being – gasp, gasp – evil reductionists.

Second, this study suggests that the biofield yields easily to the intentionality of TT practitioners, potentially giving them tremendous power over biological systems. Depending on the conscious or unconscious intentions of the practitioners, such powers could harm or even kill! Any TT nurses who take this study seriously should be reminded that patients should be protected from such a force, rather than be subjected to it cavalierly for mere pain or stress relief. The lesson here: Don't ever annoy your nurse! Or you may get an extra ear.

Of course, it was maddening that the TT practitioners weren't blinded and asked to "assess" what cell type they had before them, e.g. normal vs. cancer; skin vs. bone. And it would be fascinating to learn what they thought they were doing by focusing "positive intentions" on cancer cells. ("Positively die, bad cells!")

Gronowicz, the "principal investigator," is being characterized as an apostate CAM skeptic. The Hartford Courant wrote: "Gloria Gronowicz is about the last person you'd expect to put stock in the touchy-feely discipline of energy medicine.... [She] was in the doubting camp." In reality, however, Gronowicz is a faculty member for UC's "Programs in Complementary and Integrative Medicine," teaching medical students "evidence-based" CAM. She is arguably among the first people NCCAM might turn to a study like this.

It is curious that Gronowicz is listed last among JOR authors. The lead author is instead Ankur Jhaveri, her lab assistant with only a BA in marketing. That might account for the confusing data, as well as explain why the study feels like a sales job.

— Linda Rosa, RN

References:

<http://www.uchc.edu/ocomm/newsarchive/news08/jul08/healing.html>

"Study Entices Thoughts Of Hands-On Healing" (Hartford Courant)

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http://picim.uchc.edu/faculty/profile_gronowicz.html

Faculty bio for "Programs in Complementary and Integrative Medicine"

THE HUNT FOR SKEPTIC NURSES

Linda and Emily Rosa are trying to locate any rational nurses who are skeptical about "complementary and alternative medicine."

If you know of any such person, write them at:

rosa@4dv.net .