

# **NIH and the Harkin Directive: Subtle Energies and Social Policy**

**by Stephan A. Schwartz**

## **ABSTRACT**

*At a time when the American health care system is in a crisis leaving as many as one out of the three individuals without proper health care coverage, the Senate Appropriations Committee Subcommittee on Health and Human Services, chaired by Senator Tom Harkin (D-Iowa), has directed the National Institutes of Health to spend two million dollars in 1992 studying "unconventional medical practices." To this end an Ad Hoc Committee on Unconventional Medical Practices has held one meeting in June with a second planned for fall 1992. This paper explores two possible lines of research, Therapeutic Intent (TI) and psychophysiological self-regulation (PSR), including placebo effect, which is seen as an unconscious PSR response resulting from TI. Relevant literature of the last 30 years from many disciplines, covering everything from cell colonies to animal studies to human research is surveyed, demonstrating that these alternative approaches have proven to be reliable and relatively robust, even when studied under conditions of rigorous and double-blind protocols. A possible explanatory model addressing the heretofore unanswered question of mechanism is offered, involving changes in hydrogen bonding in the blood of recipients of TI. The author proposes that, based on these studies, TI and PSR have been shown to be safe and effective, while offering an unusually attractive cost/benefit equation.*

**KEYWORDS:** Therapeutic Intent, Therapeutic Touch, Psychophysiology, Self-regulation, Placebo, Health Care Policy, NIH

**T**hirty five million Americans live outside of the health care network, and the number jumps, by some accounts, to as high as 85 million if the underinsured are considered. In a nation of approximately 260 million, that means one out of three Americans have either fallen through, or are hanging insecurely from, the safety net of health care. For that one-third every interaction with the health system is a carefully considered act, often postponed until shortly before incapacity, when only public monies can meet the need. For these people it is not a question, as in Canada, of having to wait a few extra weeks for an MRI facility across town. The possibility of any MRI exam is not an option, and this rationing by a sick person's ability to pay is the most heartless rationing of all. Yet America in delivering that inadequate care consumes a greater share of its wealth than any other techno-nation. We are in crisis.

When a system is in crisis, there is a transition period until a new critical consensus emerges. During that process of transition there is an unequalled opportunity for change.

An example of both the opportunity and the dynamic can be seen in a Congressional directive recently given to the National Institutes of Health. The NIH has been told to spend two million dollars on the investigation of "unconventional medical practices," thanks to a mandate fixed within its 1992 budget by the Senate Appropriations Committee Subcommittee on Health and Human Services, chaired by Senator, and recent Democratic Presidential candidate, Tom Harkin of Iowa.

Jeffrey Mervis, who wrote about the directive in *Nature* quotes former Representative Berkley Bedell, who advised Senator Harkin on the directive as saying, "the point is to find out what works. And I don't want some researcher to stand in the way of a cure for some dread disease just because it doesn't fit his definition of science."<sup>1</sup> This is an almost classic statement of a world view in crisis.

However, in crisis old ways fight hard against the possible success of the new. Mervis, in his article makes the point clearly:

"'Even with an annual budget of \$9 billion, NIH would not have done such a thing on its own,' admits Stephen Groft, the director and as yet

sole member of the new office. ‘But money will force you into doing things that you otherwise might not do’, he says. A few NIH institutes -- notably cancer and infections diseases -- have in the past few years devised a procedure to look at unorthodox treatments, but NIH as a whole has been loath to embrace the idea that it is ignoring potentially life-saving interventions.”<sup>2</sup>

It is a candid assessment from an NIH official noted by his colleagues for fairness and straight talk. With so many mixed feelings about the project in the funding institution, and so much institutional power at stake, it would be very easy to spend the two million in such a way that, at the end of the day, it would be possible to say, “We looked at this stuff, and there’s nothing there.” Early reports are not promising. In June, an ad hoc Advisory Panel on Unconventional Medical Practices held its first meeting and heard a group of 20 practitioners and enthusiasts present a wide range of alternative therapies suggesting that most of the NIH attention will be focused on “therapies” like crystal healing, diets, polarity, and similar programs.

**W**hile the attention of the world’s premier health bureaucracy is certainly welcome, because it will bring methodological rigor into an arena marked by too much uncritical acceptance and “true believerism” (a second meeting on methodology is, in fact, planned for the fall), attempting to evaluate alternative approaches through such global therapies as crystal healing, seems unlikely to be very productive. Can anything definitive be concluded, within the budget available, when there is no previously established foundation upon which to begin? An alternative medical concept like macrobiotic nutritional theory is so radically different from the traditional allopathic model that allocating a small portion of the two million in that direction, for instance, may only fuel more controversy. Traditionalists will complain the work is inadequate to support meaningful conclusions, enthusiasts will cry it is all a devious cover-up.

Given this environment, what realistically could be done that might reach a genuinely useful conclusion? What could point the way towards lines of research with real promise, including some real-world pay-offs in the form of an attractive cost/benefit equation? I propose two areas for consideration: First, Therapeutic Intent (TI), by which I mean, “The idea that consciousness can have a direct effect on a living organism;”<sup>3</sup> and, second, psychophysiologic self-regulation (PSR) which is, at least in

part, an extension of the first. Whereas most of the alternative “therapies” being considered by NIH may have impressive -- indeed, almost too impressive -- clinical reputations amongst some practitioners, few have ever been subjected to research employing scrupulously completed properly blinded and controlled protocols. In contrast, TI and PSR are well-documented over decades of innovative often well-executed studies strongly suggesting that major progress could result given even a small push from NIH. Just in terms of Therapeutic Intent, consider what has been achieved for tens of thousands of dollars.

More than 30 years ago, Canadian biologist Bernard Grad and his colleagues, paved the way by studying wound healing in mice.<sup>4</sup> The team would inflict a small uniform skin wound on two randomly selected populations, one designated for treatment, the other as control. They found that the mice that were the focus of TI healed about twice as quickly as a second matched control population. Other researchers including, Carroll Nash who studied the effects of TI on cell colonies,<sup>5</sup> Dolores Kreiger who explored its effect on hemoglobin,<sup>6</sup> Beverly Rubik and Elizabeth Rauscher who looked at effects on *E. coli* and salmonella,<sup>7</sup> Justa Smith who explored TI using enzymes,<sup>8</sup> all have shown that, although manifested through an unknown mechanism, it is both reliable and relatively robust.

**G**raham and Anita Watkins picked up from Grad’s animal studies demonstrating, in their own work, that anesthetized mice which were the focus of TI awakened faster than controls,<sup>9</sup> a line of research now well-established in human studies. Over the past 15 years several dozen programs, including a number of doctoral dissertations, have explored the idea of TI, expressed through Therapeutic Touch (TT), a technique developed by Kreiger, Doris Kuntz, Janet Quinn and others, which was specifically designed for use in traditional allopathic medical settings. Quinn, for instance, showed that cardio-vascular patients experienced reduced stress when compared to controls.<sup>10</sup> E. Keller reported reduced tension headache pain<sup>11</sup> and R. B. Fedoruk showed stress reduction in premature neonates.<sup>12</sup> In 1990, Dan Wirth followed up on the implications of Grad’s earlier animal wound research with a human wound healing experiment.<sup>13</sup> Under an even more stringent protocol than the animal studies, Wirth also found that human dermal wounds healed significantly faster than controls, when they were the focus of Therapeutic Intent.

All of this sounds remarkably like one of humanity's oldest beliefs, the idea that TI expressed through intercessory prayer could beneficially affect the well-being of a sick person. The now famous study by R.C. Byrd, (famous because it was one of the first published in an accepted medical journal) using an well-designed protocol suggests just such a linkage with TI, expressed in the context of traditional Judeo-Christian healing prayer. Like the secular Therapeutic Touch researchers, Byrd demonstrated that the simple inexpensive dynamic of TI could effect considerable change in hospital patient outcome. Published in the Southern Medical Journal, Byrd's abstract, shows what can be done to genuinely explore an alternative approach:

*"The therapeutic effects of intercessory prayer (IP) to the Judeo-Christian God, one of the oldest forms of therapy, has had little attention in the medical literature. To evaluate the effects of IP in a coronary care unit (CCU) population, a prospective randomized double-blind protocol was followed. Over ten months, 393 patients admitted to the CCU were randomized, after signing informed consent, to an intercessory prayer group (192 patients) or to a control group (201 patients). While hospitalized, the first group received IP by participating Christians praying outside the hospital; the control group did not. At entry, chi-square and stepwise logistic analysis revealed no statistical difference between the groups. After entry, all patients had follow-up for the remainder of the admission. The IP group subsequently had a significantly lower severity score based on the hospital course after entry (P less than .01). Multivariant analysis separated the groups on the basis of the outcome variables (P less than .0001). The control patients required ventilatory assistance, antibiotics, and diuretics more frequently than patients in the IP group. These data suggest that intercessory prayer to the Judeo-Christian God has a beneficial therapeutic effect in patients admitted to a CCU.<sup>14</sup>*

Collectively, this work, especially when considered along with the decade-long research program of William Braud, often in conjunction with Marilyn Schlitz, which has explored a wide range of consciousness intentionality effects between living systems, involving everything from changes in blood cells to the behavior of small mammals, to affecting human blood pressure,<sup>15</sup> suggests that the idea of a network of life -- a

core concept to many alternative therapies -- in which individual organisms have an ongoing subtle energetic and informational interaction both with the network, and one another, is a research avenue definitely worth pursuing. What is most intriguing of all about this work is that most of these studies involve no physical contact between TI practitioners and recipients, who are anywhere from inches to miles apart. From the perspective of NIH it is also a corpus of research demonstrating exactly the kind of evolutionary progress most scientists say they want to see in new areas of research.

**E**ven the nagging question of mechanism itself, may be on the verge of a solution. In 1965, in the course of exploring why water, that was the focus of TI, caused plants to grow faster than controls, Grad carried out UV spectroscopy on the water and found that there appeared to be differences in the structure of treated compared to untreated water used on controls.<sup>16</sup> Douglas Dean, a chemist also looked at the changes both alone,<sup>17</sup> and with Edward Brame a spectroscopist<sup>18</sup> who came to believe, because of the frequencies involved, that the changes observed were alterations in hydrogen bonding. These small population experiments, although suggestive, were challenged by critics who faulted their methodologies and analysis. In 1986, assisted by an interdisciplinary team, I tried to address these criticisms, and carried out a larger more comprehensive multi-practitioner experiment using IR spectroscopy, perhaps the optimal technique because it is in that range that the fundamental stretching frequencies of hydrogen bonding occur. The results were even more significant than the previous work and, as with a comparison between TT and the Byrd prayer study, they suggest that technique is more a matter of personal belief than a determinant of outcome.<sup>19</sup> The ability to express TI seems to be inherent, although it is improved when one adopts a disciplined approach.

All of these experiments were motivated principally by either a desire to understand what change was occurring in the treated water, or to develop an objectively quantifiable measure of the presence of TI, that was not subject to the often uncontrolled variability of living systems. However, as my own experiment progressed, I began to wonder whether what TI practitioners are doing is altering the hydrogen bonding in the blood, thus, in some way stimulating the body's natural immune response. If this is true then the entry point for TI can be identified, and a chain of conservative research begun. Although nothing specific to this hypothesis has been undertaken, groundwork for this line of reasoning

is already to be found in the literature where, over the past five years, 39 studies involving hydrogen bonding in blood have been published, largely in the core cancer journals. Is possible that, for a modest amount of money, the riddle of the oldest alternative approach of all might be resolved? The idea certainly seems worth pursuing.

The other area I believe NIH should concentrate on is psychophysiologic self-regulation. The literature for conscious self-control is now so large, covering so many illnesses, that it is impossible to do more than say that 600+ papers have been published since 1988, covering everything from breathing problems to bowel control. Here, without doubt, is an alternative already at home in the American health care system, being practiced by hundreds of health professionals, with an unusually impressive cost/benefit ratio.

**W**hat is even more startling than the conscious biofeedback technologies is the unconscious self-regulation demonstrated by placebo effect. The placebo concept, so well established in medical protocols that it is a given, has another side rarely considered.

As Harvard researcher Henry Beecher noted in a 1955 JAMA article,

*“The constancy of the placebo effect... in a fairly wide variety of conditions... suggests that a fundamental mechanism is operating in these several cases, one that surely deserves further study.... Many ‘effective drugs have power only a little greater.”<sup>20</sup>*

Strangely, the full implications of this have received remarkably little attention. It took a non-medical person, Norman Cousins, to frame the idea:

*“The placebo has a role to play in transforming the will to live from a poetical conception to a physical reality and a governing force... it leads us through the uncharted passageways of (the) mind.”<sup>21</sup>*

Across thousands of studies -- more than 2,500 since 1988 -- the placebo effectiveness rate runs about 35 per cent, providing an astonishing proof of unconscious PSR. As Herbert Benson and David McCallie noted in an article they wrote for The New England Journal of Medicine in 1979:

*“This remarkable efficacy should not be disregarded or ridiculed. After all, unlike most other forms of therapy, the placebo effect has withstood the test of time and continues to be safe and inexpensive.”<sup>22</sup>*

As if this were not reason enough to re-evaluate placebo studies from the perspective of PSR, there appears to be a clear relationship between the belief in the efficacy of a drug on the part of the physician and its actual effect. Benson and McCallie, in their 1979 paper, studied a wide range of treatments for angina pectoris and discovered that treatments which enjoyed efficacy rates as high as 90 per cent, when a treatment was new and enthusiasm in the medical community was high, fell back to the typical 30-40 per cent effectiveness, when studies critical of the treatment began to emerge in the literature.<sup>23</sup> They cited the comment of Armand Trousseau, a French physician from the 19th Century who is reported to have observed, “You should treat as many patients as possible with the new drugs while they still have the power to heal.”<sup>24</sup> Yet, exactly what is the relationship between the physician’s belief structure, and the unconscious PSR response? No one knows.

**C**learly though the capacity of individuals to control function down to the cellular level is well established -- placebo results would be impossible if this were not true. It is also clear pathways and techniques to effect PSR are well-established and that this inexpensive, cost-effective approach still holds untapped potential.

Therapeutic Intent, expressed through PSR, is perhaps the ultimate patient centered alternative therapy (as opposed to physician centered therapies in which the active agent is the doctor not the patient). As Cousins pointed out:

*“The placebo, then, is an emissary between the will to live and the body.... But the emissary is expendable. If we liberate ourselves from tangibles, ... the mind can carry out its ultimate functions and powers over the body with the illusion of material intervention.”<sup>25</sup>*

If Therapeutic Intent, whether distant or local, could reduce in-hospital days per patient by just one day, or psychophysiologic self-regulation could eliminate a single prescription per patient and, in both cases there

is considerable evidence to suggest this is achievable, savings in numbers of ten figures could be attained.

But I propose these two approaches only as a place to begin. There is no doubt that many other alternatives hold great promise; their long ethno-historic record makes that clear. The mandate of the Harkin Directive is only a first step in a process which, if honestly pursued, will lead not only to a better understanding of specific therapies, but an expansion of the way in which we think about health. It is obvious that at their core many of these alternatives are considered such, not so much for what they do, but the rationale for which they do it. Almost all alternatives hold the view of energetic inter-connectedness amongst practitioner, patient and, what they see, as an entire life network. In contrast, the prevailing allopathic view sees the specifics of diseased organs, dysfunctional systems, and assumes almost complete discreteness between organisms. In the alternative view, the physician is an assistant, helping the body to restore itself to its natural balance; in the traditional view the role is that of a warrior doing battle against illness. It would be easy to dismiss the entire wholistic alternative approach if we were not faced with the evidence of specific therapies like acupuncture, or concepts like TI and PSR. What this first funding by NIH can set in motion is an evolution of perspective. One which weds the intellectual rigor of the allopathic model, to the intuitive empiricism of the alternatives producing, in that synthesis, something that is greater than either alone could achieve. We are in crisis. Can we afford to do anything less?

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