The Myth of the Magic Pill

Have we got the medication issue terribly wrong? Could it be that deliberate misinformation, misguided hopefulness, sheer ignorance, and vested interests have combined to mislead us utterly on the usefulness of drugs?

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The practice of attributing emotional suffering to chemical imbalances in the brain is now so commonplace that since the antidepressant Prozac - the first SSRI or selective serotonin reuptake inhibitor - was introduced in 1988, over 300 million prescriptions have been written for the drug and its two chemical cousins, Paxil and Zoloft. Pharmacological treatment is not only popular for adults but also the fastest growing form of intervention for children. In 1996 in the USA, 600,000 prescriptions for Prozac alone were written for kids under the age of eighteen (long ago Eli Lilly created a peppermint flavored version of Prozac), and 203,000 for children between the ages of six and twelve. Three thousands scripts were written for infants under the age of one![1]

So ubiquitous have these drugs become that almost everyone has either taken or knows someone who is taking medication and reporting feeling better as a result. And while most mental health professionals would acknowledge that the explanation given to clients - 0f a chemical imbalance in the brain - is a gross oversimplification, few reject the biochemical model altogether. Fewer still question the effectiveness of the drugs, and virtually no one challenges the idea that combining medication with therapy is the best of all treatment options. At least it includes what talk therapists have to offer. The problem with these common beliefs and practices emerges, however, when they are examined in the light of scientific research. Empirically, there is *little support* for:

- the idea that emotional suffering is caused by a biochemical imbalance in the brain;
- the superiority of drug treatment over psychotherapy (even for 'severe' depression); or
- better outcomes when therapy is combined with drugs.

What our culture calls 'depression' is a complex condition of mind, body, life, and heart. Standard medical textbooks say there is no such thing as a simple 'biochemical imbalance' which accounts for emotional problems. Indeed, as neuroscientist Elliot Valenstein points out in his excellent book, *Blaming the Brain*, the arguments supporting biochemical imbalances are unconvincing and the research rudimentary at best. Valenstein suggests that psychotropic drugs create, not cure, biochemical problems because of the brain's plasticity and rapid adaptation to pharmaceuticals. And yet the message is widely broadcast that emotional suffering is a medical disease.

Drug company promotion

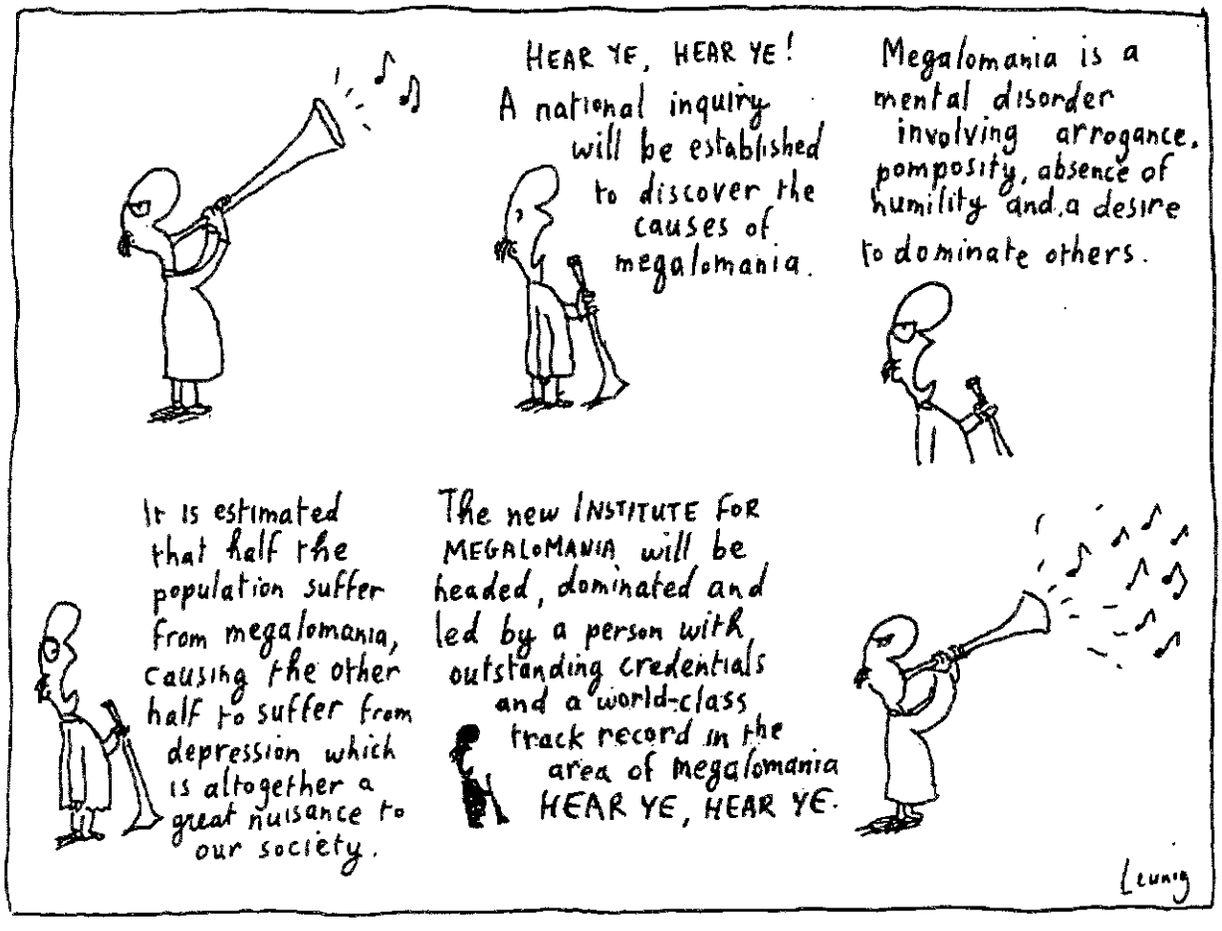
For decades, pharmaceutical companies and their handmaidens have spent billions of dollars promoting this simplistic message, and it has only intensified since the introduction of the 'miracle SSRIs.' Trumpeting these drugs' supposedly vast advantage over earlier antidepressants and therapy, drug company

representatives rent booths at psychiatrists' conventions; buy advertising in medical journals; hand out manufacturers samples to MD's talk to journalists; and fund the seemingly incontrovertible drug research that provides the intellectual undergirding for their stance. More recently, the pharmaceutical industry has bypassed these traditional 'middle men of mental health' and marketed their wares directly to the general public. Antidepressants are now as normal and pervasive as aspirin - like VISA, it's everywhere you want to be. Zoloft's logo smiles from plastic pre-paid phone cards, coffee mugs, luggage tags, and complimentary pens and pencils. A commercial during the World Series asserts the powers of Paxil to cure social anxiety. A colorful tissue box in a physician's office proclaims: 'Sue's playing with her kids again' on one side and 'Walter's fishing again' on the other. The reason for the turnaround? 'Just like normal - thanks to Prozac!'

In the USA there is an annual National Depression Screening Day (NDSD); all across the country, hospitals, mental health clinics, physicians offices, and even libraries, grocery stores, and shopping malls help people suffering with depression, many of whom apparently do not even know they are suffering. Sponsored by the American Psychiatric Association and National Institute of Mental Health (NIMH) and supported by mental health organizations and patient groups, this project has grown to include over 3000 sites. In 1998 it screened a record 90,000 people. Over the radio and on television, the message is the same: depression, the silent killer, is a treatable, physical disease, like high blood pressure. 'Help' is just a phone call away.

At the screening sites, the message continues: mild forms of depression can be helped with counseling; however, moderate or severe forms of the disease require medication. But in spite of being jointly *sponsored* by the American Psychiatric Association and the NIMH, NDSD is actually *almost completely funded* by drug companies. In fact, six of the seven major funders are pharmaceutical companies. Kathleen Day reported in her 1995 article 'Depression Awareness—or a Prozac Pitch?' in the *Washington Post*, that Eli Lilly alone provides 50% of the funding! The same article reported student and parent complaints that the project, extended into schools, seemed little more than a plug for Prozac. Say no to drugs, but say yes to Prozac.

Primary care physicians, who write most prescriptions for antidepressants, are prime targets for this marketing



extravaganza disguised as a public awareness project. For example, after a recent Depression Day, the managed mental health care firm, Pacificare, reported that the typical physician in its plan now identifies two to four depressed patients a day and prescribes medication. Hence, $7 billion was spent on Prozac, Paxil and Zoloft last year.

There is substantial evidence that SSRI's can cause or exacerbate depression, suicide, paranoia and violence

Finally, consider the recent White House Conference on Mental Health. Leading luminaries in the field of medicine gathered together to discuss 'cutting edge' discoveries in the treatment of emotional problems. As columnist Adrianna Huffington later pointed out in a June 1999 article (Adrianna Online), however, the whole affair was, 'mainly a cheerleading session for drug manufacturers,' with the plenary sessions looking like 'infomercials.' Adrianna's take on the conference message was that, contrary to the first lady's suggestion, it doesn't take a village to raise a child, just a pill. Adrianna's conclusion notwithstanding, this 'historic' conference provides commentary on the pervasiveness of the bad chemicals on the brain theory of human suffering and the belief in the myth of the magic pill.

The role of professional associations

Professional associations representing therapists seem to have believed the drug companies' publicity and accepted their second class status, assuming the primacy of pharmaceuticals is based not on great marketing, but good science. For example, having apparently resigned themselves to a 'if you can't beat psychiatry, then join them' philosophy, the American Psychological Association is fighting for prescription privileges for psychologists. At the same time, the American Association for Marriage and Family Therapy (AAMFT) is funding their campaign for wider recognition as a legitimate provider organization by seeking grants from various pharmaceutical companies. AAMFT recently joined Glaxo-Wellcome (a drug company) to produce a brochure called *Intimacy and Depression: The Silent Epidemic.* Drugs are spotlighted as the treatment of choice for depression. Curiously, family therapy is never mentioned, and therapy of any kind becomes a poor second cousin to medication - 'antidepressants are usually effective, [but] psychotherapy can also be useful,' the brochure condescendingly points out. It also laments about the many sexual side effects of antidepressants, but suggests that other choices exist *without* sexual side effects. Luckily, Glaxo-Wellcome makes Wellbutrin, an antidepressant whose major marketing distinction is its lack of sexual side effects. Wellbutrin is not mentioned in the brochure, allowing the AAMFT to maintain its posture of never endorsing products, but a veiled and ghostly endorsement nonetheless hovers around the entire production, whatever the high-minded denials. Family therapists and other non-medical therapists can either accept a second class status, or face daunting odds in protesting the erosion of valued traditions in their professional organizations.

The state of research

In contrast to what most clients are told, little is actually known about how psychotropic drugs actually work. A 1974 review of 91 studies reported that tricyclic antidepressants had no better effect than a sugar pill in nearly one third of the published reports. Though largely overlooked, this finding is particularly noteworthy because participants who showed rapid improvement to the fake pill (called, 'placebo responders') were eliminated from these studies! Furthermore, as research with negative results is less likely to be published, one can safely assume that the extent of the placebo response rate was considerably underestimated in this review.

SSRIs do not work for everybody. The *Physician's Desk Reference* reports that adverse reactions cause 15-16% of people to discontinue treatment and that little is known about their effectiveness or consequences beyond 12 weeks of use. A 1999 report issued by the Agency for Health Care Policy and Research (AHCRP) found that in spite of being marketed as having 'fewer side effects,' those actually taking the new and improved drugs didn't think so. In fact, they were just as likely to drop out of research studies because of side effects as those who took the older tricyclic drugs. Patients on SSRIs are more likely to complain of diarrhea, nausea, insomnia, agitation, headache, and sexual problems. The tricyclic antidepressants are more likely to cause dry mouth, constipation, dizziness, blurred vision, tremors, and adverse cardiovascular effects.

Adverse reactions may be much more serious however. The Columbine shootings highlighted the increased chance of violence as a response to these drugs. According to psychiatrist outcast Peter Breggin, in his 1999 book *Your Drug May Be Your Problem,* 'there is substantial evidence that... SSRI's can cause or exacerbate depression, suicide, paranoia and

violence.' Psychologist Ann Blake Tracy investigated 32 murder/suicides in her book *Prozac: Panacea or Pandora*? She found that 24 of these 32 cases were taking SSRI's. Yet Frederick Goodwin, former director of the NIMH, boldly asserts that the question of psychotropic drug safety and effectiveness 'has long been settled by a mass of scientific evidence and by the testimonies of hundreds of thousands of patients, their families, and caregivers.' When this 'mass of scientific evidence' is examined however, the supposed superiority of biological intervention is exposed as a house of cards built on a foundation of sand.

First, consider the report of the AHCPR, which reviewed more than 300 randomized trials of the SSRIs for depression. The report concluded that the SSRI's were no more effective in treating depression than the older and much less costly tricyclic antidepressants. Moreover, in contrast to the 75-80% success rates frequently touted in promotional literature by drug companies, the AHCRP reported a much more modest 50% response rate to the drugs. In other words, only half of those given an antidepressant actually experienced some benefit. While at first glance this figure may still seem impressive, the researchers found that 32% of people in the studies they reviewed responded just as well to an inert, inactive placebo! This means that the newer anti-depressants only outperformed sugar pills by 18%, leading psychiatrist Walter Brown to provocatively propose that placebo should be the first line of treatment with depression.

In their provocative tour de force, *From Placebo to Panacea*, Professors Roger Greenberg and the late Seymour Fisher demonstrate that the validity of controlled studies, in which a placebo is compared to the 'real' drug, depends upon the participants and the raters who measure the effects not knowing who is getting the real drug and who is getting the placebo. They point out, however, that the use of inert sugar pills as the placebo in the vast majority of drug studies actually makes it possible for everyone involved to tell who is taking the real drug. Simply put, those taking the active medication will be more likely to experience the standard side effects - dry mouth, weight loss or gain, dizziness, headache, constipation, nausea, insomnia, and so on - clear signals that they are taking a powerful drug - while those taking the sugar pill will not. As a result, the 'double-blind' study is immediately 'unblinded' - a fact which seriously compromises any conclusions that can be drawn.

Paradoxically, side effects *by themselves* likely account for the effect seen in antidepressant studies. A review that examined thirteen (*all* available at the time) studies on Prozac by Roger Greenberg and his associates in a 1994 issue of the *Journal of Nervous and Mental Disease* found that side effects were themselves positively correlated with improvement. They reported that the greater the experience of side effects, the better the outcome was judged to be by both patient and clinician. A meta-analytic review of drug treatments for obsessive compulsive disorder similarly found judgements of therapeutic benefit rose as the experience of side effects increased. These studies suggest that a sudden nudge to clients' physical perceptions seemed to jump-start their own capacity for emotional regeneration.

Psychologists and respected scientists Irving Kirsch and Guy Sapirstein make a persuasive case that antidepressants may have no effect on depression other than that produced by the perception of side effects and the power of placebo. Their meta-analytic review of 19 studies involving 2318 patients showed that the 75% of the beneficial effect of antidepressants can be ascribed to the placebo effect. The remaining 25% of the positive effect of antidepressant is attributable to the side effects. Their review demonstrates that antidepressants are equivalent to credible, but non-antidepressant drugs; in other words, when an *active* placebo is used (one that mimics the side effects of the real drug), the advantage for the antidepressant disappears - there is no difference in discernible effect between the placebo and the drug being tested. Several other recent meta-analytic studies from independent research groups have validated the finding that placebo accounts for most of the antidepressant effect.

The quality and strength of the therapeutic relationship is the primary determinant of successful outcomes across treatments - including medication!

Finally, drug studies often look better than they are because they rate improvement by looking to clinicians' perceptions, not clients'. They usually rely on clinician-rated measures of depression (the Hamilton Depression Rating Scale or the Global Assessment Scale, for example) rather than client-rated measures (like the Beck Depression Inventory or the Lambert and Burlingame Outcome Questionnaire). But clinicians and clients differ substantially in their estimates of how much improvement in emotional well-being the drugs bring about. In 1986, outcome researcher Michael Lambert and colleagues discovered in their meta-analysis of antidepressant studies that clients reported significantly less improvement on drugs than did their therapists. Six years later, in 1992, Greenberg and

colleagues published another more extensive meta-analysis of 22 antidepressant studies involving 2230 patients, and compared the effects of a placebo with both 'old' (Elavil, for example) and 'new' (Prozac) antidepressants. They found that both old and new antidepressants showed an advantage [about 18%] over the placebo on clinician-rated measures, but *none* on client-rated measures. In short, when clients rate their *own* responses they usually experience no improvement on antidepressants beyond what can be attributed to hope and expectation.

The advantages of psychotherapy

Antidepressants are heavily marketed as more effective than therapy for severe depression, and as the pharmaceutical bubble continues to swell, managed care plans have inexorably pruned therapy to a bare minimum in favor of medications. But research has for years demonstrated that drugs are no more effective than therapy, and there is growing evidence that they may even be *less* effective. As just one example of such research, consider the largest and most methodologically sound study conducted to date comparing psychotherapy with drug treatment: The Treatment of Depression Collaborative Research Project or TDCRP, led by psychologist Irene Elkin. This 1989 NIMH project, which involved psychiatrists and psychologists in multiple cities, randomly assigned 250 participants to four groups: Aaron Beck's cognitive therapy, Gerald Klerman and Myrna Weissman's interpersonal therapy, antidepressant treatment, and finally placebo. Overall, the four treatments - including the placebo - worked with about the same effectiveness!

Since the study was first published, there is now research evidence that changes brought about by therapy are more likely to persist over time. In 1992, researcher Tracie Shea and colleagues published an 18-month follow-up study of clients in the original 1989 NIMH multi-site project. The psychotherapies outperformed the medications and placebo on almost every outcome measure. More therapy clients than drug clients recovered without a subsequent major depressive relapse, while those receiving the antidepressants sought treatment more often during the follow-up period, showed a higher probability of relapse, and experienced fewer weeks of minimal or no symptoms than either the two therapy groups or the placebo group.

Over the decades, generations of therapists have come to suspect it isn't so much *what* they do - what theory, what model, what technique or even what medication - that helps people, but *who* they are and who their *clients* are, as well as the idiosyncratic personal *fit* between themselves and the people who come to see them. Now, there is a growing body of solid evidence for this widespread intuitive wisdom. A study conducted by Sidney Blatt and colleagues based on the same massive data pool comprising the 1989 NIMH project, reinforced evidence that has been emerging in other studies for years: the difference in outcome was related more to differences among clients and therapists than to treatment methods. Blatt found, however, that some therapists were more effective than others. Who were they? The researchers learned that the clinicians most successful in treating depression were more likely to use psychotherapy alone - they rarely used medications at all. 'More effective therapists have a psychological rather than a biological orientation in their treatment approach,' Blatt concluded.

But wouldn't the best of all possible worlds be one in which medications were *combined* with therapy, for a kind of double whammy treatment effect? This idea that both together must be better than either one alone for treating depression has become the newest orthodoxy among many professional groups. In fact, this sensible-sounding compromise solution actually promotes the use of medications, by implicitly suggesting that virtually anybody who enters therapy for any reason could usefully take them, and many managed care funded practices now routinely require all therapy clients to undergo medical evaluations as a prerequisite to treatment. And yet, there is little evidence in favor of the two-is-better-than-one approach. In 1998, Larry Beutler, researcher and senior editor of *The Journal of Consulting and Clinical Psychology*, challenged anyone to find current scientific literature supporting this now-conventional belief. No one can. Consider a meta-analytic study by Yale psychiatrist Bruce Wexler who concluded his review of seven well-controlled studies of 513 patients with this simple comparison: out of 100 patients with major depression, 29 would recover if given drugs alone, 47 would recover if given therapy alone, and 47 would recover if given combined treatment. On the other hand, drop out or poor response can be expected in 52 drug patients, 30 therapy patients, and 34 combined patients. Further, a 1995 *Consumer Reports* study concurs that medication plus psychotherapy contributed no more benefits that psychotherapy alone. These findings suggest that therapy alone should usually be the initial plan, rather than expose clients to unnecessary costs and side effects of combined treatments. In sum, the preponderance of scientific evidence shows that therapy is as effective or more effective than medications in the treatment of even severe depression.

Questionable research

Last year a piece of investigative journalism in *The Wall Street Journal* reported that 96 percent of the research studies of a drug funded by its manufacturers turn out favorable results, while only 37 percent of such drug studies *not* funded by the manufacturer find in favor of the new drug. Like a flower opening itself to

the sun, the research results tend to be skewed in the direction of the money source. Similarly, a study just published in October, 1999 in *The Journal of the American Medical Association (JAMA)* by Mark Friedberg concluded that drug company sponsorship is associated with reduced likelihood of reporting unfavorable results. In a scientific version of the piper calling the tune, the drug company paying for the research tends to get the kind of research its leaders want.

Psychiatrists Peter Breggin and Loren Mosher have documented the powerful influence of drug company money on continuing education and psychiatric journals. Mosher, in a 1999 *Psychology Today* article, estimated that drug companies pay an average of $10,000 per physician, per year, on 'education.' Fully 30% of the American Psychiatric Association's budget is underwritten by drug advertising, and pharmaceutical companies substantially support psychiatric conferences through displays and unrestricted grants. It is understandable that biological psychiatry is now embraced almost exclusively in medical schools and residency training programs. 'Biochemical imbalance' is the battle cry of the profession.

Medication and the therapeutic process

With all this largesse and publicity raining benevolently down, is it any wonder that people and therapists tend to become hypnotically fixated on the brouhaha about a 'revolution' in psychopharmaceuticals and overlook the boring fine print of the drug studies with their more negative implications? Importantly, the fact that drugs do not live up to their miracle status does not discredit those that have been helped. Medication has its place - if only it would stay there! To give the devil his due, we believe that antidepressants can be very helpful at times - especially for those who believe in them. Because they've had good press, they can positively harness the placebo effect, reinforcing Sir William Osler's dictum that 'One should treat as many patients as possible with a new drug while it still has the power to heal.'

Recall, once again the NIMH Treatment of Depression Collaborative Research Project found that clinical improvement was unrelated to the type of treatment received (e.g., psychotherapy, drug treatment). Researcher Janice Krupnick and colleagues, using the same data (reported in *The Journal of Consulting and Clinical Psychology*), have shown that the quality and strength of the therapeutic relationship was the *primary* determinant of successful outcome across treatments - including medication! The type of treatment administered didn't matter. The type of relationship formed mattered most. Indeed, the massive size of the NIMH study means that the best, most empirically supported treatment for depression is a good relationship with a therapist.

For most of the history of the field, therapists have been trained and research conducted 'as if' treatment models and their associated techniques explained and caused change. Like the anesthetic before surgery, 'building an alliance' or 'establishing rapport' has routinely been thought of as the procedure therapists must do *prior* to the 'real' treatment (e.g., confronting dysfunctional thinking, prescribing drugs, etc.). In contrast to common perception, the therapeutic relationship is not another vague, unquantifiable, 'feel good' technique from the field of therapy. Neither is it the latest in a long line of miraculous technique to be hyped on the lecture circuit. Rather, a virtual mountain of studies conducted over the last forty years consistently find that therapies in which the *client's* goals, ideas about the problem and change process, and perceptions of a helpful therapeutic interaction, are incorporated into the treatment, are the most successful. Note the emphasis on the client's perception.

Here is where we differ than those that would apply the aggregate data about drugs and psychotherapy without considering the client's own views of what could be helpful. It is true that the data suggest that psychotherapy should be the first line of treatment for people with experiences of depression, then if change is not forthcoming, medication can be considered. However, such an assumption does not integrate the unique aspects of what our work entails, nor does it include the most potent contributors to the change process in the decision-making process - our clients. Listening to and exploring their stories, experiences, and interpretations of the problem and the change process, what we have come to call the client's theory of change, over time, evolves to an approach that is tailored to the unique qualities of the individual client.

In short, treatment is client-directed. Depending on the client's views of what effectively produces change, this could include anything from physical exercise and dietary changes to assertiveness training, cognitive-behavioral therapy, volunteering, St. John's Wort, restructuring family hierarchies or learning how to get along better with others - all of which have been shown to sometimes have a positive impact on depression We would, for example, never stand in the way of a client considering medication if they believed their problems were of biological origin and thought the drugs might be helpful. It is up to therapists to privilege clients' wishes in the therapy conversation, including their trains of thought, their brainstorming, and their talk. When clients put medication on the table, then therapists can naturally help them explore it as an option. When clients believe medication will help, feel more hopeful at the possibility of trying medication, and are 'in the driver's seat' in making an informed

choice (including information about side effects, length of treatment, and possibilities of relapse), then medication can be beneficial. To follow the client's lead is to maximize client participation, strengthen the therapeutic bond, and enhance therapeutic outcomes.

The only exception to this would be with children. The efficacy and safety of antidepressants, axiolytic, and antipsychotic drugs has yet to be established. Given the lack of data, one can only consider the practice of prescribing such drugs to kids as unethical.

Whatever approach evolves from the dynamic moment to moment synthesis of ideas, the measure of its helpfulness is the client's view. Finding something that fits for each client is facilitated by routinely inviting their feedback about the treatment they are receiving; in other words, by becoming more outcome-informed in treatment. The proof of the pudding is, as they say, in the eating. We must know when to say when - whether the approach is medication or one of the 400 methods and techniques of therapy. Therapy must have an evaluative component that enlists our clients help in determining the adequacy of any approach - a partnership that involves the client's voice in every juncture and decision.

In a society that has come to expect, even demand, miracles from the pharmaceutical companies, it is little wonder that the chronic problems of drug therapy and the excesses of corporate marketing have been largely ignored. We hope against hope that some pill, some simple and painless solution, will be the cure-all for our emotional and familial woes. Finally realizing that psychiatric drug therapy is a profit-driven industry, built on a flimsy science, may be the bad tasting medicine we've needed. Although it may be hard to swallow, it is time for therapists to learn the data, reinvigorate their belief in therapy, and offer clients real choices for addressing their concerns. Ultimately, therapists need to just sit back, take a deep breath, and accept the truth about depression and other human travails: there is no better medicine than a good therapeutic relationship. Can therapists take yes for an answer?

Notes

1. This article is adapted from Barry Duncan and Scott Miller's latest book *The Heroic Client: Doing Client Directed Outcome Informed Therapy.* For space reasons, references have been omitted; interested readers should refer to this book.

Scott Miller and Barry Duncan are co-founders of the Institute for the Study of Therapeutic Change (ISTC) and co-authors of several books including* The Heart and Soul of Change, Escape from Babel, *and* Psychotherapy with 'Impossible' Cases. *Jacqueline Sparks collaborated on the* Heroic Client *project and is a member of the ISTC team, as well as a Doctoral Candidate at Nova Scotia University.