

Medicating people with mental illnesses

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Even though the use of medicines to treat mental illness has become commonplace throughout industrialized societies a variety of strong opinions exist on the subject. As is the case with so many other important issues in our society, people seem to be divided into two camps with little ground held in common.

Some people believe that our developments in psychiatric medications have raised the treatment of mental illness to unprecedented new heights and look with scorn at anyone that would question this assumption. Others are absolutely convinced that these medications - and the psychiatrists that prescribe them - should be abolished altogether. Whenever this degree of polarization is encountered it gets hard to make sense of things.

One can reliably assume that whenever *any* extremist position is encountered its proponents must be engaging in a fair amount of distortion of reality. But separating out distortion from fact can become very difficult when the issues involved are as complex as the ones involved here.

Examining the way that pharmaceutical companies *want* us to think about psychiatric medications provides a good place to begin.

The pro-drug lobby

When pharmaceutical ads are reviewed it becomes apparent that these psychotropic medications are essentially held up as a cure for mental illness. If you can just take the right medication your life will get back to normal, regardless of the illness or problems that you have to deal with. Everyone in the ads looks happy, satisfied, and productive -after they've been treated with whatever pill the drug company is trying to sell.

This view of mental illness and its treatment is rooted in an unquestioned basic assumption that mental illnesses are the result of "chemical imbalances". Nearly everyone who suffers from a mental illness has had that idea drummed into them. Well-meaning professionals tell them that their illnesses are "just like diabetes". And we emphasize how important it is to take the medications faithfully - for the rest of their lives in many cases. When people become more symptomatic we almost always assume that either they haven't been taking their medications properly or that they must need more of them in order to get those "chemicals" in balance again.

Advocates of this modern, "biological psychiatry" approach to mental illness can point to all sorts of reasons why the medication treatment of mental illness has never been better.

Our scientific understanding of the brain has advanced dramatically in just the past decade. We can now look at images of the brain in action, study neurochemistry at a

subcellular level, and develop medications to specifically target particular groups of cells. These medications are powerful and effective. They've been carefully tested in clinical trials and proven superior to placebos. The incidence of side effects has been measured and compared to placebos too. And we can count on the fact that if a pill is supposed to have ten milligrams of "Compound A" in it will have exactly that.

In the past fifteen years we've had a number of medications released that are safer and easier to use than anything that was previously available. Most of them are not as dangerous in overdose as the older drugs. And we don't have as much of that nasty business of causing involuntary movements or turning patients into shuffling zombies to deal with anymore.

The people that are happy with the direction that modern psychiatry has taken are absolutely sure that they're in the right. A whole system of care has been developed to treat people with brief office visits where everyone gets a pill - or adjustments in the pills that they're already taking. Hospital care is almost always centered on medication adjustments too.



People wait anxiously for the newest versions of these drugs to be released. We assume that if there are people that are still burdened by symptoms of their mental illness it must be just a matter of time until the right medication is discovered that will make everything better.

Perpetuating the vision

The big drug companies spend enormous amounts of money to get people to see psychiatric medications in this way. There is now one drug company representative for about every eight physicians in this country. These salespeople are almost always young and attractive. The men are tall and good looking, the women look like models, and everyone wears dark suits and has nice teeth. These people are *very* enthusiastic about the

drugs that they sell.

These "drug reps" have sales territories just like other salespeople and they know exactly who their big prescribers are. Sometimes they even refer to the Doctors who distribute a lot of their products as their "horses". Not too long ago it was commonplace for the "horses" to be rewarded with cruises, fancy dinners, or money but now there have been attempts to limit these practices. So the pharmaceutical companies have had to come up with new strategies to influence the opinions of physicians.

If one looks at the "disclosure statements" that Doctors have to file nowadays you'll see that most of the prominent psychiatrists that speak at the large conventions - and shape the opinions of other psychiatrists - are on the payroll of *at least* five drug companies. Many are in double digits. "Consultation fees", direct payment for giving talks in support of a drug, and various sorts of research grants are all used to tie us shrinks to the drug companies in ways that are very rarely questioned.

Just about all psychiatric or mental health conferences are now underwritten by pharmaceutical companies. Our psychiatric journals are becoming so filled up with drug company advertisements that they're starting to look like *Vanity Fair*. Even television is now being inundated with ads showing the public how happy and free from anxiety they could be if only they'd swallow the right pills. Many patients are coming to psychiatrist's offices requesting drugs that they've seen on TV and some Doctors are only too happy to oblige.



"Discouraging data on the antidepressant."

The lengths that pharmaceutical companies will go to in order to increase their profits has been getting some attention in the press these days. Of course these companies will use -or misuse - statistics in whatever manner that will make their products look better.

GlaxoSmithKline was accused of fraud for hiding negative research outcomes about the effectiveness - or lack thereof - of Paxil in childhood depression. Pfizer was fined 400 million dollars for giving kickbacks to doctors to prescribed their anti-seizure drug neurontin for Bipolar Illness and other disorders that it had not been approved for. AstraZeneca and TAP Pharmaceuticals pled guilty to criminal charges and agreed to settlements of over one billion dollars for billing government programs for drug samples that were supposed to be free of charge.

Some companies mail out official looking “journals” in which their products are promoted or their competitors are attacked - if you don’t read the fine print you’d never know that these are really advertisements rather than actual scientific publications. Roughly one in five new drugs released in this country are taken off the market within a couple years because of side effects that weren’t apparent - or were kept under wraps - in their clinical trials.

The lack of long term studies on these drugs is quite disturbing. It was just recently that someone finally got around to studying the effects of methylphenidate (Ritalin) after over fifty years of giving it to our children. A study in the peer reviewed *Cancer Letters* looked at the chromosomes of 12 children who were about to be started on Ritalin. After three months of taking normal doses every one of those kids had chromosomal abnormalities. A threefold average increase in chromosome problems was found over their baseline conditions.

Chromosome breakages are associated with an increase in the risk of developing tumors later in life. It's way too early to panic - or to even say with certainty what these test results will mean in the long run. But it's hard to escape the fact that it took over five decades to do this simple experiment on one of the most commonly prescribed drugs for our children. When we research the effects of medications it's rare to see any studies that look beyond a year and most of them only examine the way we respond for the first six to eight weeks.

Patients are tested in ways that maximize their response to new medicines. While they may be poverty-stricken, have poor diets, and live in terribly stressful environments the drugs are typically tested in safe and sparkling hospital wards where they eat well and get lots of professional attention. Patients may be taken off of effective drugs abruptly and switched to placebo so that the placebo effect will be weakened by withdrawal from the previous drugs. When new drugs are compared to existing drugs the older drugs may be given in doses known to be ineffective.

Many critics condemn the shabby and unethical business practices that the pharmaceutical industry keeps getting caught in. But what can we really expect of this industry when we accept the fact that it will be run for the profits of the CEO's and

shareholders? Criticizing a capitalist company for doing whatever it takes to make as much money as possible seems a bit like bringing a horse into your home to live, then getting upset when the carpet gets soiled. As long as health care in this country is run for profit we'll just have to accept that the drug companies will engage in whatever sneaky practices they think that they can get away with.

So there are a lot of powerful forces at work that make it hard to question that core assumption that as long as the "chemical imbalance" is corrected everything will be OK again. And a very important offshoot of that thinking is the idea that once the right medications are on-board these patients will go on to have "normal lives", hold "normal jobs" and live in "normal environments". All of these ideas are now so ingrained in the mental health field - and throughout our culture - that even beginning to question them exposes a person to the risk of being labeled a crackpot, a heretic, or worse.

A divergence of opinion

Of course those "crackpots" that are opposed to the whole "chemical imbalance correcting industry" have their own way of seeing things. Some of the more radical opponents of modern psychiatry would even like to see all of the psychiatric medications removed from the market entirely.



Some of their arguments are based on an objection to corporations and their stockholders making billions of dollars on the care of our most disadvantaged citizens. The whole issue of whether decent health care is a right for everyone or just a commodity to be

produced for profit like any other evokes a variety of strong opinions.

The most powerful argument available to the anti-pharmaceutical forces is that the whole notion that mental illnesses are a result of some vaguely defined chemical imbalances is looking like it was just plain wrong. So far there is no evidence that any of the major mental illnesses is caused by anything as straightforward as a chemical imbalance. In fact that idea seems increasingly naive and simplistic these days.

As has been reviewed elsewhere in this work, it now appears that schizophrenia is a disorder rooted in problems with the way the brain is structured during fetal development. Genetics, maternal infections, changes in the hormonal environment that the fetus is exposed to, obstetrical complications, and even the season that one is born in are just some of the factors that can result in those structural brain changes.

**Table 6-4: Structural Brain Abnormalities
Found In Vivo in CT and MRI
Studies of Schizophrenia***

Cortical

- Widened fissures and sulci (especially sylvian and interhemispheric)
- Abnormal sulcal-gyral configurations
- ↓Cranial volume
- ↓Gray matter volume
- ↓Gray matter density (especially in anterior left hemisphere)
- ↓Brain tissue volume
- ↓Frontal volume
- ↓Temporal volume
- ↓Parietal volume
- ↓Inferior parietal lobule volume
- Abnormal hemispheric asymmetries

***Limbic System (may be more pronounced
in left hemisphere)***

- ↓Hippocampus volume
- ↓Amygdala volume
- ↓Parahippocampal gyrus volume
- ↓Olfactory bulb volume
- Abnormal sulcal-gyral configuration in entorhinal cortex

Subcortical

- ↑Ventricle-to-brain ratio (VBR)
- ↑Lateral ventricular volume
- ↑Temporal horn of the lateral ventricles
- ↑Third ventricular volume
- ↑Caudate nucleus volume (probably caused by conventional neuroleptic treatment)
- ↓Thalamic volume (may be reversed by antipsychotic treatment)
- ↑Thickness of corpus callosum
- ↑Length of corpus callosum
- ↑Frequency of cavum septum pellucidum

Other

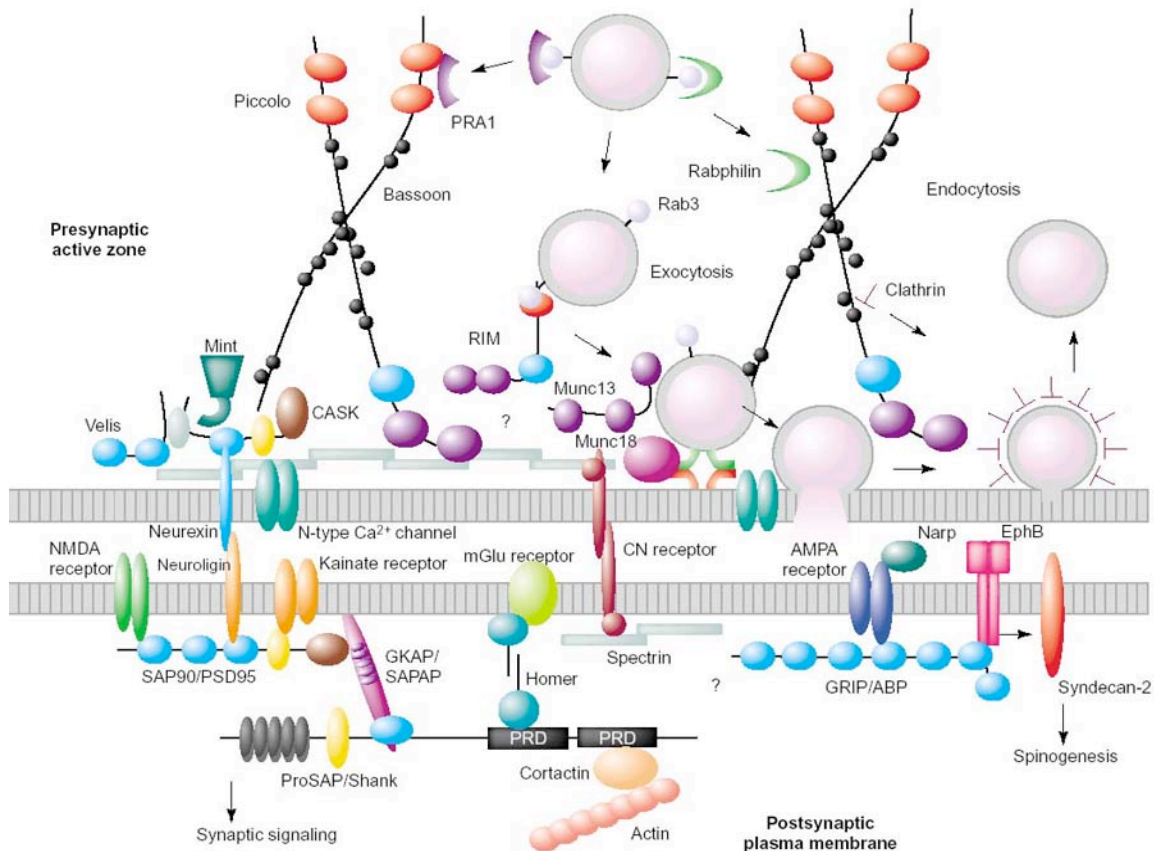
- ↓Volume of midline cerebellar structures (vermis)
- Gray matter heterotopias
- Unidentified bright objects (UBOs), probably related to microvascular ischemia

*Modified from Nasrallah HA: Relationship of structural brain changes to antipsychotic drug response in schizophrenia. In Shrikui CL, Nasrallah HA, eds. *Contemporary Issues in the Treatment of Schizophrenia*. Washington, DC, American Psychiatric Press, 1995:209-224.

These are just *some* of the changes in brain structure that have been identified in schizophrenia alone. While they are not usually this extensive, each of the mental illnesses has its own list of ways in which the brain is not developed properly. Most serious neuroscientists can no longer support the old idea that mental illnesses result from a "one gene - one enzyme - one neurotransmitter imbalance" model of brain dysfunction. The changes involved in the brains are just too complex and widespread to be accounted for by such a simple mechanism.

People in the mental health field have all been exposed to the idea that the "chemical imbalances" that were supposed to cause mental illness are involved with the actions of specific neurotransmitters at *synapses*- the areas where two nerve cells meet and communicate.

The basic idea is that chemicals are released by one nerve cell, cross the synapse to fit into a receptor on the next cell, and a reaction takes place which allows the nerve impulse to be continued. All of our psychotropic drugs have been aimed at increasing or decreasing the actions of one or more of these transmitters. It turns out, however, that these synapses are just a bit more complicated than we originally thought.



Each neuron has receptors for multiple neurotransmitters. Each of them can be affected by the actions of other similar transmitters, as well as actions on both sides of the synapse itself. A single neuron may connect with as many as a quarter-million other neurons in this way.

To complicate matters further, these neurons are very much alive and respond to their environments in a variety of ways. For example, if a neurotransmitter is blocked by the action of a drug the cell responds by making more of those receptors in an attempt to reestablish the balance that existed before.

The very same neurotransmitter can be excitatory *or* inhibitory depending upon what receptors are waiting for it on the other side of the synapse. We have neurotransmitters that work slowly and set up the background tone for transmission and others that work very quickly. Some chemicals change the way entire brain areas respond to neurotransmitters as is the case with a recently discovered "signal processor" called DARPP 32. Our nerve cells also communicate with each other through the release of hormones and even by exchanging nitrous oxide.

Our simple ideas about how our drugs work have been challenged by all sorts of emerging data. Neuroleptic medications used for the treatment of schizophrenia were long thought to work by blocking the action of a transmitter called dopamine but now it turns out that the newer antipsychotics *increase* dopamine flow in some brain areas.

The SSRI medications like Prozac were believed to work by keeping a transmitter called serotonin working out in the synapse longer but a European antidepressant called tianeptine has the opposite effect- and works just as well. The idea that these antidepressants work by increasing the birth of new brain cells in the hippocampus would have been seen as preposterous just a decade ago.

So even though drug companies and a lot of psychiatrists will still attribute mental illnesses to those "chemical imbalances" that position is becoming increasingly hard to justify. And the forces opposed to the widespread medication of our citizenry can point to other areas that support their beliefs.

That whole idea that our medications are getting better with each passing year doesn't hold up well to scrutiny. As we'll see as the different drug classes are reviewed, the new drugs have become significantly better in terms of a reduction in some of the unpleasant side effects that have traditionally been associated with treatment. But when the actual effectiveness of the drugs in the conditions that they're prescribed for is examined it becomes evident that the new drugs are not really any better at reducing symptoms than the ones we had decades ago.



Most Effective Medications ?

Antipsychotic: Clozaril 1960's

Antidepressant: Tricyclic Antidepressants 1950's

Overall Mood Stabilizer: Lithium 1948

Clozaril is still the most effective antipsychotic. The older antidepressants are a bit more effective for severe depressions than the new ones. And good old lithium is still the best mood stabilizer available for preventing mania and reducing the risk of suicide. In each of these cases there are reasons why the side effects can be a significant problem but that commonly held idea that our medications are more effective now just doesn't hold up.

Then there is that thorny issue of how people respond to having their chemical imbalances corrected. If that was really what was going on we could anticipate that once the chemicals were set straight the person should be pretty much "normal". But these medications can do their job on the chemical balances within a couple of hours yet the therapeutic effects can take weeks to months to emerge. And even when our drugs work

at their very best it's rare to see people experience the dramatic benefits that are portrayed in the drug ads. True recovery from mental illness involves a much more complicated process than just taking a drug.

Another curious fact deserves consideration: the average length of stay in acute psychiatric hospitals in America these days is somewhere around four to five days. People come in with psychotic symptoms, depression, mania, or suicidal impulses of such severity that hospital care at over a thousand dollars per day is felt to be warranted. These patients are usually begun on new medicines or the ones that they had stopped taking are restarted. And most of them leave the hospital feeling at least somewhat better than when they went in.

The catch is that the medicines that they receive take at least a couple weeks - and often a couple of months or more - to start working. So people frequently get better and leave the hospitals *before* the medications have even started to work. It seems reasonable to conclude that something else must be going on in addition to whatever the drugs are providing.

The placebo effect: friend or foe?

While most people know at least a little bit about the placebo effect, few are aware of how powerful it can be - or what a major player it is in the treatment of the mental disorders.

If so many people are getting better and leaving psychiatric hospitals before the medications can be taking effect it's probably reasonable to assume that the placebo effect is involved for many of them. When patients check into psychiatric hospitals a number of things are likely to happen. They leave whatever environment they were living in - with all of its stresses, chores, distractions, temptations, and irritations - and enter a safe, organized world in which there is a very clear expectation that change will occur.

Just presenting for admission to a hospital requires an acknowledgement that there are some significant problems that must be attended to -whether that awareness comes from the individual himself or the people that dragged him in. In the hospital those problems are taken very seriously. Staff members even write down the things that the patient says. Tests are performed. Doctors and nurses are around all of the time making observations and assessments. Medications are prescribed. Social workers are involved in planning for when the patient is improved enough to return to the community. It's no surprise at all that a lot of people would experience a change in how they think and feel under these conditions.

The power of beliefs and expectations can be truly awesome for humans. The *best* psychiatric medications may demonstrate a 20-30% edge over inert placebos in the most favorable circumstances. Strangely enough, being able to show statistical superiority over sugar pills is a very real challenge for the pharmaceutical companies as they try to bring

their new products to market. There is a requirement that any drug be proven statistically superior to placebo in two different studies before it can be approved by the FDA. The pharmaceutical landscape is littered with all sorts of promising drugs that had to be abandoned because they were not able to meet that standard.

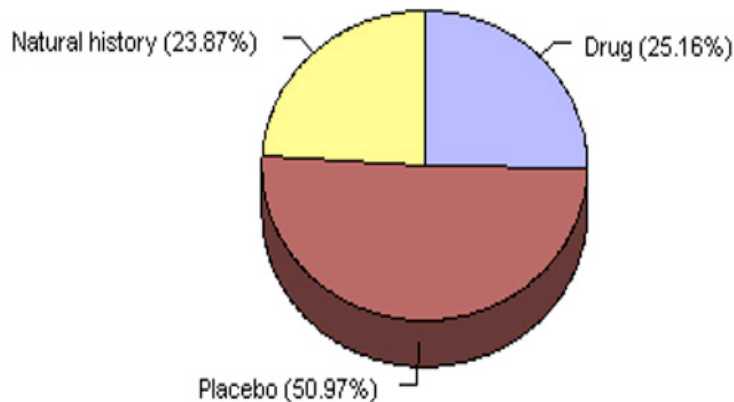
People familiar with drug research are aware that even that 20-30% improvement of active drugs compared with placebo is often artificially inflated. The gold standard research tool for evaluating drugs is the "double blind placebo controlled study". In these protocols the patients are given capsules that are randomly chosen to contain either active drug or placebo. Neither the patient nor the Doctor is supposed to be able to tell who is getting the active treatment. Then response rates and side effects are carefully measured for both of the patient groups.

As one might guess, there is a very common flaw in the "double blind" approach. Characteristic side effects frequently emerge in response to the "real" pills. So both the patients and the Doctors are often able to tell whether the active drug is being prescribed. The power of beliefs and expectations - both on the part of the patient and the researchers - is altered when people can correctly guess about who's getting the active treatment.

If more valid comparisons are to be made it's necessary to use what are called "active placebos". Instead of inert sugar pills these placebos are chosen to have the same sort of side effects as the active drug, without any of the therapeutic properties. Patients and Doctors are much more likely to believe that active drug is being prescribed if the placebos provide the same sorts of stomach upset, dizziness, headaches, or whatever other side effects are typical of the active drug. Of course there is often a corresponding increase in response rates when everyone thinks that the patient is receiving active medication.

The drug companies are loathe to participate in any research that involves "active placebos". They have an enormously difficult time proving that their products are superior to the inert placebos as it is. When the active placebos are used for comparison the slim margin that active drugs hold over sugar pills often fades away and can disappear entirely.

When researchers look seriously at the effects of placebos on psychiatric treatments the results look something like this.



Roughly a fourth of our clinical improvements are likely to be the result of the "natural history of the illness". Humans do have powerful healing mechanisms to reestablish whatever equilibriums have been upset. The majority of people suffering from mania or depression will eventually get better on their own. It's not like nobody ever recovered from these disorders before these classes of medications were invented. Even psychotic episodes often come to an end without treatment. So a lot of people - but by no means all - who take pills with a resulting improvement would have gotten better without treatment.

About half of clinical response to drugs is attributed to those placebo effects. Convince a human that change will occur and they're likely to experience it.

The remaining quarter or so of clinical responses are felt to be specific to the actions of the drugs themselves. While this can seem like it's not very much, when one is dealing with individual patients it turns out to be a lot. A Doctor has no way of knowing if a single patient will get better on their own, in response to the power of beliefs, or if specific medications are needed. So we will almost always opt for the treatment that provides the individual with his best overall chance of clinical improvement. And for psychiatrists that almost always means prescribing medications for our patients.

It's easy to understand why pharmaceutical companies may regard the placebo effect as the enemy that must be conquered if they're to successfully market their products. The scheming and strategizing that they get involved in while trying to minimize the effects of placebos may be more difficult to forgive. But it would seem that the placebo effect would always be the patient's friend. People get better in response to the incredible power of expectations and no costs or side effects are involved. What could be wrong with that?

The downside of the placebo effect

One of the unusual things in the history of our treatment of the mentally ill is that so many different treatments have been effective for at least some patients. Just think of the things that have been done to mentally ill people in this country - by educated, well-intended, and respected psychiatrists - in the name of therapy.

We've induced pustules on patient's heads in attempts to relieve the heat that we believed was building up in their brains. At times we've even drilled holes through people's skulls. Cold water treatments were very popular for a while. Spinning mentally ill people around in special chairs was once felt to be a powerful cure.

We've induced seizures with a chemical called camphor and then, later, by applying electric current right to the head. For a while "regressive ECT" was in vogue. Patients would receive multiple shock treatments per day until they became completely child-like and unable to care for themselves. The belief was that the personality would then be rebuilt from the ground up through therapy.

Blood sugars were lowered with insulin until people became comatose - with the hope that they'd feel or behave better when they woke up. When Thorazine and the other antipsychotic medications were released in the 1950's we gave them at doses far exceeding what turned out to be optimal for therapeutic response. For decades psychiatrists were taught that the patients had to have a lot of side effects if they were to have any chance of improvement so we dutifully medicated people until they were tremulous zombies.

A personal favorite was the "bath of surprise". In this "treatment" unwitting patients were blindfolded and led down a walkway until suddenly a trapdoor was released, plunging them into freezing cold water. Some people obviously responded even to this approach or it would have never gained favor with psychiatrists.

It's a telling fact that the only person to receive a Nobel Prize for a psychiatric treatment was a neurologist named Egas Moniz in 1949. His contribution to our field was the "transorbital lobotomy" in which an ice pick was jammed up through the top of the eye socket in an attempt to disconnect the frontal lobes from the emotional centers of the brain. We psychiatrists were convinced for a while that this was an effective treatment for all sorts of mental disorders. Over 5000 mentally ill patients per year were fortunate enough to have access to this form of therapy in late 1940's America.

Of course many of these treatments for psychiatric disorders look hopelessly primitive -even silly - in hindsight. But in each of these cases the Doctors administering the treatments were convinced that they were delivering state-of-the-art psychiatric care. And they looked back on the treatments of *their* predecessors as being barbaric too. One can readily imagine (and hope) that our current treatment approaches will seem just as primitive and misguided in the not too distant future.

The real problem that resulted for patients - in addition to having to undergo all of those nasty procedures that is - has been a belief among the public that since so many diverse treatments have been effective for the treatment of mental illness then there must not be anything *seriously* wrong with these patients to begin with. We have long viewed the major mental disorders as "*functional* disorders" as opposed to "organic" ones. The assumption has been that people with mental illnesses had essentially normal brains but just needed some help to get them to work properly again. Of course nothing could be further from the truth.

Common elements of effective treatments

If we're to try to understand how so many odd and diverse "treatments" work for at least some mentally ill people it makes sense to look for some shared components among those approaches. It looks like many, if not most, psychiatric treatments do have some elements in common.

In all of these psychiatric treatments there is some mechanism to capture the patient's attention in the moment. The reality of "the here and now" must be made sufficiently compelling to get the patient to join us in it, at least for a moment. The treatment setting can be terrifying or puzzling, sympathetic or harsh, but it must be enough to draw the patient out of his world of thoughts for at least a little while. In fact, stopping that relentless "internal dialogue" that most of us are engaged in from morning 'til night may be an essential component of any therapy.

All therapies seem to create a particular type of relationship between patient and treater. In this type of relationship the treater determines what sorts of things will happen in the relationship and the patient complies at some level. Even simple things like directing the patient to sit in a particular chair or to come to the office on a certain day reinforce this type of relationship. Once the therapist has established a relationship - by whatever means - in which he suggests something and the patient complies it becomes possible for him to successfully suggest that "symptoms" will be reduced or changed.

Good therapies provide a ritual if possible, and a rationale at the very least, that supports the idea that change will take place. It's important to keep in mind that specific biological treatments for *any* kind of illness have been around mankind for only a hundred years or so, yet there have been effective healers throughout human history. For a long time rituals designed to convince the person that they'd get better were all we had but many people with all sorts of illnesses got better. Doing things to increase the expectation of change was really the basis of all medical care as we know it until very recently.

It's hard to say how much of the clinical improvements that patients experience in response to modern medicine have actually been a result of the symbolism of white coats, impressive instruments, and fancy words as they interplay with the patient's beliefs and expectations. The old adage among Doctors is "use the new drugs before they stop working" - a direct commentary on the role of expectations in the therapeutic process.

And some of us wonder if our medical treatments aren't doomed to become less effective as people's opinions of our medical system change in response to the greed and financial scandals that have come to characterize our health care.

Patient attitudes and patient compliance

Psychiatrists on the more "biological" end of the spectrum are often prone to dismissing these concerns about patient's beliefs and expectations. We'd prefer to believe that giving medications to humans is really no different than medicating lab animals. If the right drug is introduced into the right chemical situation the results should be the same every time.

Leaving aside the placebo effect and the fact that there are no good animal models for mental illness, the major problem with that line of reductionistic thinking is that those patient attitudes and beliefs become critically important when it comes to whether they will actually take the medications that the psychiatrist believes will be helpful.



"We're running a little behind, so I'd like each of you to ask yourself, 'Am I really that sick, or would I just be wasting the doctor's valuable time?'"

Research has consistently found that somewhere between half and two thirds of psychiatric patients don't take their medications regularly, if at all. A lot of factors contribute to this. Many don't feel that they're ill in the first place or cannot recognize the benefits that others observe in them when the drugs are taken regularly. Sometimes the enormous cost of these pills is a deal breaker. People often expect that drugs will make them feel better right away and give up on them before a full trial is completed. Side

effects frequently lead to discontinuation of the meds, even in supervised clinical trials. The stigma associated with taking these drugs can be a big problem. And many patients look at how many drugs are prescribed for them as an indicator of "how sick the Doctor thinks I am".

The sheer number of medications that are often prescribed for individuals presents a number of issues in addition to its negative effects on patient compliance.

Pharmaceutical companies almost always test their drugs on people that are not taking other psychiatric medicines. At most there might be two drugs on board during the trials. Anything more than that and the relative contributions of each drug become very hard to separate out statistically. And even though they have a vested interest in selling more product, those drug companies typically find that a modest dose of a single drug is adequate to treat most patients with any given disorder. The Evidence Based Practice literature also supports the idea that multiple trials of single drugs should usually be tried before moving to "polypharmacy" - the prescription of several drugs for the same condition.

But it's rare to see patients on single drugs anymore. Many of the patients we see in the public sector are prescribed medications in dizzying combinations. Fifteen psychiatric medicines in the same patient is by no means unheard of. Four or five drug regimens have become commonplace. Some pills are given twice per day, others four times, and some only at bedtime. Yet how many of us *without* mental illnesses are able to consistently take a one week course of an antibiotic that's prescribed three times per day? It's no wonder that compliance with these complicated psychotropic regimens is so spotty - or that we have to hire so many nurses to go into people's homes to try to keep the patients taking the drugs.

That issue of whether or not a true "therapeutic alliance" is present obviously becomes vitally important when it comes to medication compliance too. If the Doctor and patient are not working from a shared understanding and towards common goals it's pretty easy for the patient to opt out of the relationship or at least to try to maintain some degree of control in it. Not taking the medications as they're instructed to is an easy way to remind themselves who is really in charge of their life.

So we may try to pretend that the attitudes that patients have about us and our drugs aren't that important. But if we're to be serious about maximizing patient compliance and response to our treatment ignoring their beliefs and expectations is only inviting trouble.

Specific drugs for specific disorders?

Our profession routinely asks that patients surrender their ideas that they'll be treated with one drug and that it will make them feel better right away. That's a lot to ask and many patients can't get past it. Now we're also asking that they and their loved ones give up the idea that patients will be treated with a drug that's specifically designed to treat the illness

that they're suffering from.

It used to be that when you looked at the drug - or list of drugs - that a patient was taking you could make a pretty good guess as to the mental illness that they had been diagnosed with. That is clearly not the case anymore.

Commonly Used Medications		
<u>Schizophrenia</u>	<u>Bipolar</u>	<u>Depression</u>
Neuroleptics	Anticonvulsants	Antidepressants
Antidepressants	Neuroleptics	Anticonvulsants
Lithium	Lithium	Neuroleptics
Anticonvulsants	Antidepressants	Lithium
Minor Tranq's	Minor Tranq's	Minor Tranq's
Stimulants	Buspar	Stimulants
Buspar	Stimulants	Buspar

This is an admittedly rough and subjective listing of the various medications that we commonly see used to treat the major mental disorders. One could certainly quibble about whether the frequencies are exactly the same everywhere but the basic point is hard to get around: We're using the same drugs - or combinations of drugs - to treat *all* of the major illnesses these days. If the diagnoses of Schizoaffective Disorder and Borderline Personality Disorder had been included the point would be even more obvious. Those disorders are even more likely to be treated with a "pharmaceutical cocktail".

So regardless of what major disorder you suffer from if you see a psychiatrist in America there's a good chance that you'll end up on a combination of antidepressants, antipsychotics, and mood stabilizers - perhaps with a stimulant or valium - class tranquilizer thrown in for good measure. This happens despite the fact that these drugs have almost never been studied in the combinations that we prescribe them in and that the clinical evidence doesn't suggest that high dose or combination therapy should be necessary for most people. What could possibly be going on here?

Ten principles of medicating with psychiatric drugs



Whenever long or confusing medication lists are encountered there's a good chance that the Doctor has neglected some very basic, common sense principles of using medicines. Unfortunately, when we only see patients for brief visits every several months it's easy to overlook or ignore these principles no matter how much we might agree with them in theory.

As we review the classes of medications used for each of the major psychiatric disorders it will become apparent that there is almost never a single drug that stands out as the clear favorite for any psychiatric condition. So holding on to these general principles becomes increasingly important if we truly want to provide our patients with the simplest, most effective, and easiest to tolerate medication therapy possible.

10 Principles of Medicating With Psychotropics

- 1) Define Target Symptoms
- 2) Look at Options Together
- 3) Establish Method for Determining Effectiveness
- 4) Determine Length of Trial
- 5) Review Side Effects and Management Plan
- 6) One Change at a Time
- 7) Gradual Changes are Usually Preferable
- 8) Watch For All Possible Interactions
- 9) If It Isn't Helping Discontinue It
- 10) If It's Experimental Treatment Be Honest About It

These ideas are so basic that it would be hard to mount much of an argument against them. We need to know what we expect the drug to do - what the "target symptoms" are that we're trying to reduce - and choose a drug that has a good chance accomplishing the goal. Since it is the patient's life that we're dealing with it only seems fair to let them know what options are available and what might happen if no treatment is utilized. We need to have some way to tell if the medications are effective and to recognize that the patient may not be in the best position to be objective about this.

Obviously, if we want to know if any particular medicine will be helpful we need to try it for a long enough time and at an adequate dosage. Knowing about what side effects might occur and what to do about them will help with compliance but should also be seen as a basic patient right.

If we're adding or changing more than one drug at a time it becomes difficult to know what's going on. If the patient becomes better or worse is it a result of drug A, drug B, or some combination thereof? We've also seen that human brains typically tolerate these medications better if they're added gradually, with adequate time to get used to them.

The list of other medications, herbal preparations, and even foods that can raise or lower the blood levels of the psychiatric medications is enormous. Most Doctors cannot keep track of all of these interactions so we have to be willing to consult reference works to see what research is available to inform us about them. Of course this requires an admission that we don't know everything and that can be a real hurdle for some of us.

Neglecting to discontinue medications that aren't helping is one of the biggest contributors to our expanding medication lists. But when we don't have clear ideas about what we want the medication to do and have little information about whether it's being effective it becomes hard to tell whether any given pill should be continued or stopped. In the absence of good data it's always easiest to leave the drug list unchanged.

Letting patients know when we're prescribing drugs for conditions that they haven't been studied in or approved for seems to be - at the very least - a common courtesy. Some of us would go so far as to argue that it is their *right* to know when their treatment becomes "experimental". Whenever we prescribe drugs in ways that aren't supported by the research literature we should have a clear rationale for this and be able to adequately explain it to our patients and their advocates.

So why don't we Doctors follow those basic principles?



"Why carry malpractice insurance if you don't malpractice once in a while?"

In actual practice we psychiatrists neglect to follow those basic principles of medicating all of the time. We might wish that things were different but we'll point to some common realities that make attending to such ideals very difficult.

Most of us believe that *our* patients are a lot more complicated and difficult to treat than the patients that qualify for research studies and there is a lot of truth to that. It's increasing rare to encounter patients in the public sector that have just one clearly defined problem. Many patients are coming to us with complicating factors such as substance abuse, medical illnesses, legal problems, extreme poverty, or additional psychiatric diagnoses. Since we're often under tremendous pressure to stabilize these difficult patients quickly and have little research to guide us we may feel that cutting corners is justified.

Oftentimes there is more than one prescribing Doctor involved. New patients showing up in our offices are often already taking a host of drugs that were given to them in the hospital, by family practitioners, or by previous psychiatrists. Simplifying preexisting drug regimens can take a lot of time if done properly.

Patients themselves sometimes push for additions to their medications. Some will request a new medication or dosage adjustment whenever they don't like the way they're feeling. Bad feelings are accepted as evidence of a chemical imbalance so correcting them with drugs is readily accepted as well.

Sometimes it's family members or other mental health professionals that push for rapid changes in medications. They may not like the way a patient is behaving or functioning and want something to be done about it. If a case manager brings a patient in to see a psychiatrist because of some behavioral problem and there isn't a resulting increase in existing medicines or the addition of a new one they may leave feeling cheated.

We psychiatrists often combine medications in hopes of balancing out their side effects. For example, we may add trazadone to medications like Prozac or Celexa in an attempt to override the insomnia that the SSRI's can cause. Or we may add Abilify to drugs like Zyprexa to try to minimize the weight gain that Zyprexa commonly leads to.

As seen in the chapter on psychiatric diagnoses, there are often situations where we really don't know with any degree of certainty exactly what disorder we're really treating. Schizoaffective Disorder has become the default diagnoses among severely mentally ill people these days and the diagnosis commonly leads us to essentially prescribe "one of everything".

And, while this is sad to say and certainly invites retaliation from hordes of angry and offended shrinks, psychiatry is not that different from any other profession. We have some brilliant and caring Doctors in our field and we have others who do not keep up with the research literature or pay any attention to basic principles of diagnosing or prescribing mental illnesses. Any of us that routinely see the work of a number of other psychiatrists are likely to know a few that we wouldn't allow within shooting distance of a family member.

Even the best psychiatrists often have to make decisions based on too little data and have too little time to do the job. When poorly trained, incompetent, or uncaring psychiatrists

are in that position the resulting problems are magnified.

Any one of us psychiatrists can look at the drug regimens prescribed by other Doctors and convince ourselves that we could improve upon them. As a group we may tend to be set in our own ways of seeing things and we're not always welcome to suggestions that our care isn't the best possible.

In our clinical situations it is frequently impossible to tell if a single patient is improving in response to changes in the dosage of a drug, how long the drug has been on-board, a combination of drugs, or variables in the patient's life that we have no information about whatsoever. So mistakes are inevitable. But that still doesn't mean that the rights of patients to have the simplest, most effective treatments available - and to participate in their treatment to the fullest extent possible - should be overlooked in the cavalier manner that we sometimes demonstrate.

Can't we just ignore these issues?

So just like any polarizing issue, from gay marriages to abortion to war in the Middle East, there are people lined up on each side of the controversy surrounding the role of psychiatric medications in our society.



Sometimes it's hard to know which way to turn. There are a lot of people who don't know what to think and we try to resolve our dilemma by not thinking about these issues at all. Ignoring is a handy way to deal with all sorts of controversies. But if you're in that

one fourth of our population that suffers from some form of mental illness - or you have a loved one that does - the issues around these medications have to be dealt with in one way or another. And those of us who work in the mental health professions obviously have to come to terms with the problem. We have to make decisions about the use of these medications every day.

How hard should we push our patients to take their medications regularly? At what point should we drag these people back in to see their psychiatrist to have the medications reevaluated? What problems should be viewed as resulting from an inadequate response to medications, which are really medication side effects, and which are to be seen as the personal responsibility of the individual? Is it ethical to raise questions about the appropriateness or effectiveness of a medication if that might lead to a lowered expectation of improvement, a decreased placebo response and more symptoms? What happens to treatment when people are required to demonstrate ongoing problems in order to maintain eligibility for social supports and entitlements? And what can we honestly expect these medications to do for people?

These are difficult questions for our field to deal with. It's so much easier when we're convinced that our patients either get better as a result of the medications that we prescribe or get worse because they haven't complied with our treatments. You really can't blame shrinks for clinging to that tidy old chemical imbalance model.

Changing roles - uncertain directions

The role of psychiatrists in our society is shifting in ways that are hard for some of us to deal with. We used to be the guardians of mysterious and fascinating information about the ways that humans thought, felt, and functioned but the emphasis on *understanding* our patients has clearly decreased in our field over the past decades. In the public sector simply remembering our patient's names can be challenge enough these days.

Increasingly, we've become the gatekeepers that control access to new and increasingly expensive medications. The information about these drugs - which one to choose, what dosage should be used, what side effects can be anticipated and so on - is now readily available to anyone that wants it. A simple Internet search (www.mentalhealth.com is a wonderful place to start) and an hour or two of reading will allow most people to know nearly as much about any given psychiatric medication as the person who is prescribing it to them. This is a very different situation than anything that's existed before.

Where does all of this leave an increasingly embattled profession? On the one hand our treatment efforts are still in the same old mode of adding a dash of this, a half-pinch of that, saying some fancy words, and hoping for the best. But the rituals, close relationships, and healing presences that we counted on to make our treatments work in the past are quickly fading away.

Psychiatric care is becoming a business like any other now. Our record keeping has

shifted from making observations that would improve future care of the patient to entering chart notes that are ultimately concerned with money. We now document what we do in order to minimize liability to lawsuits, to satisfy the demands of distant bureaucrats, and to maximize billable revenues. If we're not careful, providing the best possible care for our patients can become an afterthought.

When we become a business like any other we become influenced by the same sorts of market forces as other businesses. Educated consumers and family members (and their attorneys) that are keenly attuned to issues regarding patient's rights to effective and informed treatment will likely have a more dramatic impact on the way that our profession evolves over the coming decades than will any of the drug companies or the psychiatrists that they employ.

The attitudes that we psychiatrists have about our medicines are very important and have a tremendous influence upon how our patients think about their illnesses and treatments.

None of us want to mindlessly buy into the view of psychiatric medications that the pharmaceutical companies put forth. But advising everyone to throw away their medications would be irresponsible too. Most of the psychiatrists that raise questions about the role of medications in the treatment of mental illnesses still prescribe them every day and would give them to our own children in the right circumstances.

It's hard to find some solid ground to stand on these days. Probably the best place to start as we try to resolve these issues is to examine the findings of researchers that are not on the payroll of the drug companies. The following chapter is an attempt to summarize what we've come to know about our psychiatric medications and what we can reasonably expect from the treatment with them.