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# What to do, now that big pharma and psychiatry have thrown empiricism under the bus

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# What To Do, Now That Big Pharma and Psychiatry Have Thrown Empiricism Under The Bus

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For a more complete review, see:

[www.behaviorandsocialissues.org](http://www.behaviorandsocialissues.org)

Behavior and Social Issues

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or

Wyatt, W. J. (2009). Behavior analysis in the era of medicalization: The State of the science and recommendations for practioners. *Behavior Analysis in Practice*, 2, 49-57

# Q: Why is this important?

## A: Answers:

- The 35-yr. emphasis on biological causation has rendered medications as the treatment of choice.
- Behavioral treatment may be cast aside, as a result.

- When people believe their problems are biologically caused, they feel less responsibility...
- ...and have less hope for improvement.

Phelan (2002)

*Trends in Neuroscience*

- Bio causation is related to prejudice, fear and desire for distance...

Haslam, Sayce, Davies (2006)

*ACTA Psychiatrica Scandinavica*

# A growing problem:

Increasing numbers of clients show up for therapy already convinced that their difficulties are caused by their biology:

- Their Genes
- A chemical imbalance
- exposure to a toxin
- etc.

# Organized psychology has pushed the bio model

Headline: “Public recognizes depression as illness”

“Ten years ago...only 38% viewed depression as a serious medical illness...Today nearly three quarters (believe that)...We’ve come a long way.”

David L. Shern, Ph.D.,

*The National Psychologist* (2007). 16, 15

...and an implicit message these days is,  
you'd better take your meds...

Or

...don't let this happen to you...



# Caution:

Some disorders are biologically determined, or partly biologically determined.

Autism

Tumor-related

Toxin-related

Endocrine & metabolic related

Genetic-related (Down's syndrome, for example)

Others

Q: Why has the public's perception changed?

Q: And what does that mean for our behavioral treatment efforts?

# “Psychiatry’s Anxious Years”

*NY Times* (Nelson, 1982)

- Residency drop from 1970-1980, 11% to 5% of medical school grads.
  - Relatively low pay
  - Family practice emphasis
  - Psychoanalytic confusion
  - Fringe Treatments & loss of esteem
  - “Intruder” professions

# Psychiatry's response to this crisis?

Strategy conferences held.

## Solution:

- Become more medical, and
  - Attack the intruders

Organized psychiatry's attacks on non-medical "intruders" quickly became vicious.

Some examples follow:

*Hospital & Community Psychiatry* (Bursten, 1981):

“Medicalization” of disorders is useful “to rally the troops...to thwart the attackers...Economics demands that we be medical...we use the term to rout the enemy within.”

# Another

- Paul Fink, President-elect of Am. Psychiatric Assn. 1988:

“(Non-psychiatrists) don’t have the training to make the initial evaluation and diagnosis...(and) are not trained to understand the nuances of the mind...”

# Conclusion:

- Organized psychiatry's 35-year emphasis upon biological causation has been motivated, in part, by non-science based factors including:
  - Protection of its turf from “outsider” professionals
  - Re-establishing its esteem



Psychiatry finds a willing  
partner.

Big Pharma

# Pharmaceutical Company Financial Interests

- Question: How to achieve symbiosis with organized psychiatry?
- Answer: Promote the biological causation model of disorders.

# The marketing of psychotropic medications: Successful?

# 2009

- Top ten revenue producing drugs included:

- Zyprexa

- Risperdal

- Effexor

\$12.1 billion in sales in the U.S.

Health and Life (2010)

Direct-to-Consumer  
advertising:  
Legalized in 1995

# Does direct-to-consumer advertising influence physicians' Rx'ing?

*Journal of the American Medical Association*

Kravitz, Epstein, Feldman, Franz, Azari, Wilkes, Hinton & Franks, 2005

## Subjects & Method:

152 family doctors were visited unannounced 298 times by actors posing as patients.

The “patients” pretended to have symptoms of either major depressive disorder or adjustment disorder with depressed mood.

At some visits the “patients” said, “I saw an ad for Paxil on TV. Doctor, do you think Paxil could help me?”

At other visits the “patients” said that they had seen an ad for “an anti-depressant” on TV, but didn’t specifically mention Paxil.

At still other visits the “patients” made no reference to medication.

# Results

Rx of Paxil when the “patients” exhibited major depressive disorder\*:

- Mention of “Paxil” 27.4%
- Mention of “a drug” 2.0%
- No mention of drugs 4.2%

\*Similar percentages for adjustment disorder



# Another conclusion:

- The pharmaceutical industry's marketing efforts (including direct-to-consumer advertising) have increased dramatically since 1995.
- Sales of medications, including psychotropic medications, have escalated at the same time.

# Marriage

- Psychiatry

- Pharmaceutical Industry

Cementing this marriage  
together is:

Biological causation theory

Reinforcers of this marriage:

Money and power

The background is a solid blue color. A white arc starts from the top left and curves towards the right. A blue wedge shape is positioned on the right side, pointing towards the center.

The Drug Industry  
Strikes Paydirt.

- September 2007
- U.S. Children diagnosed with bi-polar disorder:

1994	20,000
------	--------

2003	800,000
------	---------

Children's use of anti-psychotic meds shows corresponding increase.

Olsen, et. al, *Archives of Gen Psychiatry*

- Medical schools at Stanford, Mount Sinai, Yale, U. Penn and others offer classes to teach medical students “how to effectively spar with the drug reps” by asking aggressive questions.

Dr. Ethan Halm,  
Mt. Sinai School of Medicine,  
*AP*, November 2007

# The Pharmaceutical Industry:

From  
Hypocrates  
to  
Husksterism



## Example:

Pharmaceutical companies  
routinely claim a  
Serotonin-depression connection.

...but, what do the experts say?

“...I never saw any convincing evidence that any psychiatric disorder, including depression, results from deficiency of brain serotonin.”

David Burns, winner of the A. E. Bennett Award given by the Society for Biological Psychiatry for his research on serotonin metabolism.

“...no abnormality of serotonin in depression has ever been demonstrated.”

David Healy, former secretary of the British Association for Psychopharmacology, 2004.

“We have hunted for big simple neurochemical solutions for psychiatric disorders and have not found them.”

Kenneth Kendler, co-editor-in-chief of  
*Psychological Medicine*, 2005.

“Advertisements that claim depression is caused by a chemical imbalance and that anti-depressants correct it, are false and should be banned.”

Jonathan Leo and Jeffrey Lacasse,  
*Public Library of Science  
Medicine,* 2007

“The chemical imbalance theory (of depression) is a ‘useful metaphor’ but shouldn’t be used when talking to patients.”

Wayne Goodman, Chair  
Psychopharmacologic  
Advisory Committee

U.S. FDA

Does all of that  
matter?

Inquiring minds  
want to know.



Sooo,

Here are some examples of Big  
Pharma's advertising.

“Celexa helps to restore the  
brain’s chemical imbalance.”

Forest Pharmaceuticals, 2005

“LEXAPRO appears to work by increasing the available supply of serotonin...In people with depression and anxiety, there is an imbalance of serotonin...”

Forest Pharmaceuticals, 2005

“When you’re clinically depressed...the level of serotonin ...may drop...The medicine doctors now prescribe most is Prozac.”

Eli Lilly, 1998

“...depression may be related to an imbalance of natural chemicals...Zoloft works to correct this...”

Pfizer, 2004

“(Pristiq) is thought to work by changing the (brain’s) levels of norepinephrine and serotonin.”

Wyeth Pharmaceuticals, April, 2010

# Conclusion:

Pharmaceutical Industry  
advertising is not to be  
believed.

Q: Will the FDA save us?

A: Not likely

- “FDA Science and Mission at Risk”
  - Inadequate staffing
  - Poor retention
  - Out-of-date technology
  - General lack of resources

Report of the FDA’s Science Board, 2007



# FDA:

- FDA found “serious problems” at drug test sites 348 times, 2000-2005. Only 26 investigators were disqualified from conducting further clinical studies.

Daniel Levinson

HHS Inspector General, 2007

Q: How well do psychotropic medications work?

A: Some studies are revealing.

# Torfanil & Paxil: Common Antidepressants.

Sources: 6 studies; 718 patients took one of these meds for 6 to 11 weeks.

## Findings:

- Meds were no better than placebo, for mild to moderate depression (Hamilton Depression Scale scores below 23 (out of 50)).
- Slightly better than placebo for severe depression.

Fournier, et. al (2010)

*JAMA*

## Another Review

Sources: 85 studies of 12 anti-depressants.

Findings:

- 37 of 38 that produced positive results were published
- 3 of 36 with negative results were published
- 11 with negative or questionable results were written as if the drug had worked.

Turner, et al., *NEJM*, 2008

## Another Review

- 38 Studies of anti-depressants (Zoloft, Paxil, Serzone, Celexa, Effexor, etc.), 1987 to 1999.
- Dependent measure: The 50-point Hamilton Depression Scale.
- Results:
  - Mean improvement, drug groups = 10 points
  - Mean improvement, controls = 8 points

Kirsch, et. al, (2002)

*Prevention & Treatment*

## Another review:

Sources: 19 studies of top-selling anti-depressants.

Primary result: Placebo accounted for 75% of improvement.

Kirsch & Saperstein, 1998  
*Prevention & Treatment*

# CDC Study, 2005-2008

- 1 in 10 Americans age 12 and up, take an antidepressant.
- Up about 400 %, since 1994.
- Fewer than 1/3 have seen a MH professional in the past year.

Pratt, Brody & Gu, 2011

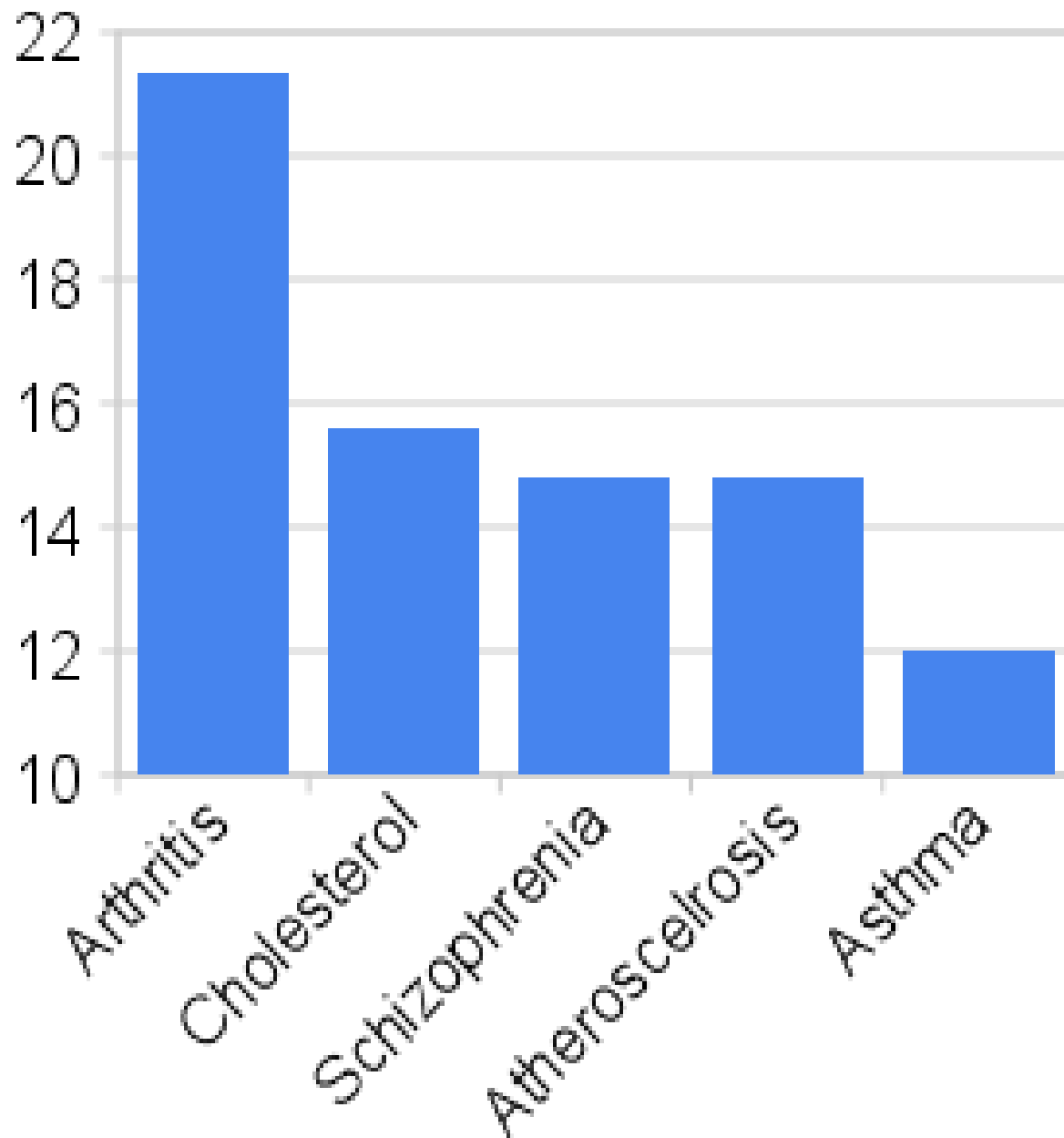
# What about Anti-psychotic Medications?

A world-wide study showed anti-psychotic meds are used nearly as often as drugs that control cholesterol::

Maggon (2009)



# Leading Therapeutic Categories



13.8

Anti-psychotics are widely  
used...

...But there is a catch:

Discontinuation rate by 18 months  
(due to side effects):

64% to 82%,

Depending on which anti-psychotic  
was taken.

Leiberman, et. al, 2005

*New England Journal of Med.*

Maybe the Congress will do  
something...

- Drug industry spent over \$22 million lobbying congress in 2007.
- Proposals aimed at restricting advertising fell by the wayside.

AP, Feb 2008

- Pennsylvania hired 11 consultants to visit doctors to combat drug makers' bombardment with sales reps and "ask your doctor" campaigns.

Drug industry trade group PhRMA said PA's consultants are not held to same standards as drug company reps in their presentations.

AP, March 2008

# Conclusions and Recommendations:

- Psychiatry has embraced non-science in order to protect its esteem and turf.
- Big Pharma has also thrown empiricism under the bus with its dishonesty regarding biological causation.
- Organized psychiatry and the pharmaceutical industry have become symbiotic: Bio-causation = drug treatment.

What's a behavioral practitioner to do?

Some suggestions follow.



# Recommendation 1

Learn about the history of, and reinforcers for,  
adoption of the bio-causation model...  
...Learn why pills trump skills.

# Recommendation 2

Know about the tactics of the pharmaceutical industry:

- Payoffs to physicians.
- Downplay of dangerous drug side-effects.
- Overstatement of drug effectiveness.
- Canceled studies where preliminary results were not positive.
- Ghostwritten studies.
- Etc.

# Recommendation 3

Develop a working knowledge of  
psychotropic medications.

# Recommendation 4

Acknowledge that, at times, medications are effective. Avoid a “drugs never helped anybody” approach.

# Recommendation 5

Avoid sliding into the vortex of medicalization. The world of of psychiatric hospitals, psychiatry and the insurance industry can pull you in.

# Recommendation 6

Stay in touch with behavioral thinkers and thinking:

- Journals
- On-line discussions
- Associations
- Attend conferences
- Develop a behavioral support network.

# Recommendation 7

For each client problem, have at the ready a data-based description that shows how a behavioral method has worked with the same or a similar problem.

# Recommendation 8

Avoid overuse of behavioral jargon, present company excepted. “Speak so that the person sitting next to you on the bus would understand it.” (Paul chance, personal communication, date long forgotten.)

A corollary: Avoid overuse of layperson terms.

In summary: Walk a fine line.



# Recommendation 9

Quickly, and gently, refute common misunderstandings about behavioral methods and behavioral philosophy.

Some examples follow:

**Myth:**  
**Behaviorists ignore genetic influences.**

**Reality:**

Genes are important. Our genetic structure enables us to change our behavior based on its consequences.

**Myth:**  
**Behaviorists discount or ignore thoughts and feelings.**

**Reality:**

Thoughts and feelings are important, because we all have them.

They are behaviors, things we do, subject to the laws of behavior (reinforcement, etc.).

**Myth:**  
**Behaviorists favor punishment techniques.**

**Reality:**  
Positive reinforcement is the watchword of behaviorists.

Myth:

Behaviorists ignore the  
uniqueness of the individual.

Reality:

All individuals are unique because they have  
unique learning histories and genetic  
structures.

## A final comment

- More than three decades ago B. F. Skinner wrote, “...genetic sources sometimes become a kind of dumping ground: any aspect of behavior which at the moment escapes analysis in terms of contingencies of reinforcement is likely to be assigned to genetic endowment...” Skinner’s observation remains true today.



The End.

Thank you.