In closing...... Messages we are *not* giving

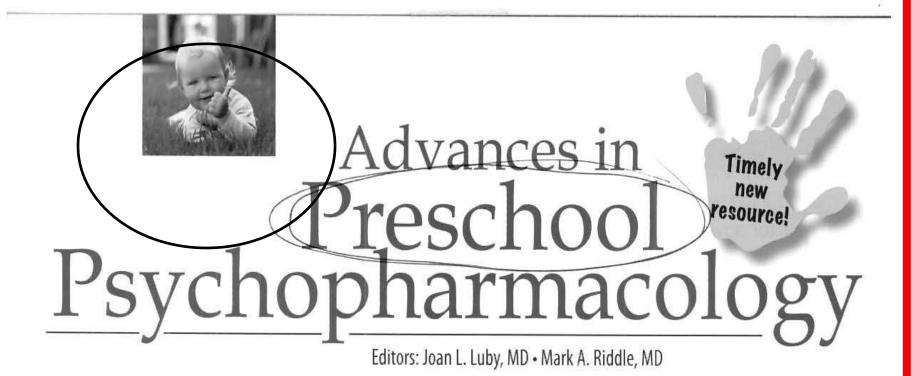
- The only cause of mental disorders is imperfect nutrition-- NO
- Everything can be cured with nutrients--NO
- All psychiatric medication is bad--NO
 - Hippocrates: "Leave your drugs in the chemist's pot if you can heal the patient with food."

So what <u>should</u> the first line of treatment be?

Diet + nutrients

'supplement' with medication if/when needed

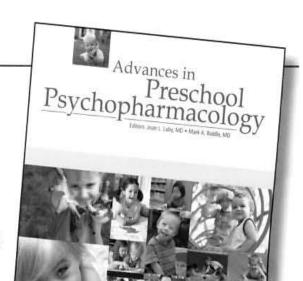
OR



An Essential Reference

An important new resource addressing the IF, WHEN, and HOW to prescribe psychopharmacologic medication to preschool children!

Advances in Preschool Psychopharmacology provides psychiatrists, pediatricians, and other health care providers with an up-to-date resource to meet the challenges of treating preschool children with psychotropic medi-



Something else we are not saying

- Broad spectrum nutrient formulas like EMP/Q or DEN or Forceval or Berocca will cure all of humanity's ills ---- or indeed all of mental disorders
- We are trying to build the evidence, but research dollars are hard to obtain

One general take-away point

- Irritability, explosive rage, mood instability
- These are SYMPTOMS most likely to improve in all 20-30 studies of broad spectrum nutrients – and they cross most mental disorder categories.
- Relevant to the information shown on inflammation.....

Elevated inflammatory markers in people with explosive rage and aggression: Coccaro et al., *JAMA Psychiatry*, 2013.

- 69 adults with intermittent explosive rage
- 61 adults with out rage but with other disorders
- 67 with no history of any disorder
- Results:
 - CRP and IL6 (inflammatory biomarkers) elevated in the 69 adults with rage attacks
 - AND
 - Biomarkers were correlated with history of aggressive behaviours

What do we need from Psychiatry?

- Remain knowledgeable about medication
- Become knowledgeable about other ways of healing

- That means, applying the findings from nutritional treatment research
- For example:

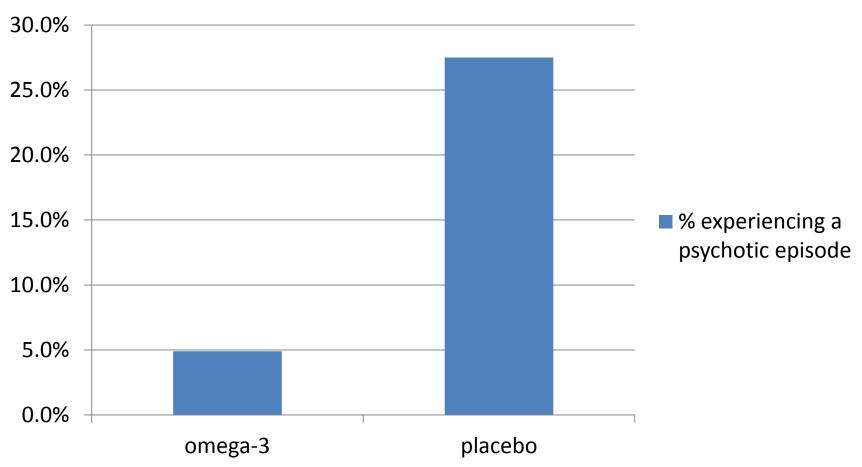
Prevention of psychosis

- Medical Univ of Vienna; 13-25 yr olds who met established criteria for high risk (genetic risk, early sx)
- □ 81 randomized to omega-3 PUFAs or placebo for <u>12 weeks</u> [dose: approx 1.2 g/day]
- □ Primary outcome: conversion to psychosis in the next <u>12 months</u>

Amminger et al., Arch Gen Psychiatry, 2010

Conversion to psychosis at 12 months





Do you know of any Early Psychosis Clinics that are introducing this preventive treatment for their patients?

WE ARE IMPATIENT

Knowledge Translation takes so long! E.g., Scurvy

- 1601: Lancaster -- open controlled trial of citrus for scurvy; none died with lemon juice, 40% on ships without lemon juice died
- 1747: Lind replicated: randomized trial 6 treatments for scurvy; citrus superior
- 1795: British Admiralty ordered citrus on all navy ships
- 1865: British Board of Trade required citrus on all merchant ships

Berwick, DM . JAMA, 280(15): 1969-1975, 2003

• Lag from evidence to practice:

264 yr