

**Omega-3 Treatment of Childhood Depression: A Controlled,  
Double-Blind Pilot Study**

**American Journal of Psychiatry**

**June 2006**

Hanah Nemets, M.D., Boris Nemets, M.D., Alan Apter, M.D., Ziva Bracha, M.D. and R.H. Belmaker, M.D.

FROM ABSTRACT:

OBJECTIVE:

Major depressive disorder in children may be more common than previously thought, and its therapeutics are unclear.

Because of success in a previous study on omega-3 fatty acids in adult major depressive disorder, the authors planned a pilot study of omega-3 fatty acids in childhood major depression.

METHOD:

Children who entered the study were between the ages of 6 and 12.

Ratings were performed at baseline and at 2, 4, 8, 12, and 16 weeks using Children's Depression Rating Scale (CDRS), Children's Depression Inventory (CDI), and Clinical Global Impression (CGI).

Children were randomized to omega-3 fatty acids or placebo as pharmacologic monotherapy.

Twenty-eight patients were randomized, and 20 completed at least 1 month's ratings.

RESULTS:

Analysis of variance showed highly significant effects of omega-3 on symptoms using the CDRS, CDI, and CGI.

CONCLUSIONS:

Omega-3 fatty acids may have therapeutic benefits in childhood depression.

THESE AUTHORS ALSO NOTE:

"Major depressive disorder is a common and recurrent disorder in children."

"It is frequently accompanied by poor psychosocial outcome, comorbid conditions, and high risk of suicide and substance abuse, indicating the need for treatment."

The prevalence of major depressive disorder is about 2%–4% in children.

"We found omega-3 fatty acids to be effective in adult depression as an add-on therapy."

This is a controlled study of omega-3 fatty acids depression children between the ages of 6 - 12.

The omega-3 trial lasted for 16 weeks, and ratings were made at baseline and at 2, 4, 8, 12, and 16 weeks using the Childhood Depression Rating Scale (CDRS), Childhood Depression Inventory (CDI), and Clinical Global Impression (CGI).

The subject children received two 500 mg of omega-3 or one 1,000 mg of omega-3 oil daily. The 1,000 mg active capsules contained 400 mg eicosapentanoic acid and 200 mg docosahexaenoic acid per 1,000 mg capsule. [Notice: 2/1 ratio of EPA/DHA] The 500 mg of omega-3 contained 190 mg eicosapentanoic acid and 90 mg docosahexaenoic acid. [Notice: 2.5/1 ratio of EPA/DHA]

The placebo children were given 500 mg capsule of olive oil containing no omega-3 fatty acids, or 1,000 mg capsules of safflower oil, also containing no omega-3 fatty acids.

## RESULTS

"The effect of omega-3 is highly significant."

"Among the children on omega-3 treatment, seven out of 10 had a greater than 50% reduction in CDRS scores."

"Of those on placebo, zero out of 10 had a greater than 50% reduction in CDRS scores."

Four out of 10 children in the omega-3 group met the remission criteria of a CDRS score, while no subject in the placebo group met the criteria.

The "omega-3 versus placebo [outcomes] were significantly different at week 8, week 12, and week 16."

The self-rating CDI results and the CGI results were also highly significant. "The omega-3 group and the placebo group were significantly different at week 8, and week 16."

"There were no clinically relevant side effects reported" from taking fish oil.

"No patient reported a fishy taste when asked specifically."

"The present study is the first, to our knowledge, of omega-3 treatment in prepubertal childhood depression." **[IMPORTANT]**

#### KEY POINTS FROM DAN MURPHY

- 1) Studies have shown that omega-3 fatty acids are helpful in treating adult major depressive disorder.
- 2) "Major depressive disorder is a common and recurrent disorder in children."
- 3) Major depressive disorder in children is often accompanied by poor psychosocial outcome, and a high risk of suicide and substance abuse.
- 4) The fish oil used in this study had a ratio of EPA/DHA of either 2/1 or 2.5/1. This is yet another study indicating that the EPA/DHA ratio should be at least 2/1.  
  
[I use the formula from Nutri-West, 800-443-3333, which maintains the 2/1 EPA/DHA ratio]
- 5) In all measures of childhood depression used in this study, the beneficial effect of omega-3s was "highly significant."
- 6) The significant benefit of supplementing with omega-3s began to show up after 8 weeks of daily supplementation.
- 7) "There were no clinically relevant side effects reported" from taking fish oil.

- 8) "No patient reported a fishy taste when asked specifically."
- 9) This is the first study using omega-3s in the treatment of prepubertal childhood depression, and it showed a significant benefit.