

Randomized dose-ranging pilot trial of omega-3 fatty acids for postpartum depression

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This study was done at the University of Arizona

FROM ABSTRACT:

Objective:

Postpartum depression (PPD) affects 10–15% of mothers. Omega-3 fatty acids are an intriguing potential treatment for PPD.

Method:

The efficacy of omega-3 fatty acids for PPD was assessed in an 8-week dose-ranging trial.

Subjects were randomized to 0.5 g/day (n = 6), 1.4 g/day (n = 3), or 2.8 g/day (n = 7).

Conclusion:

These results support further study of omega-3 fatty acids as a treatment for PPD.

Omega-3 fatty acids, specifically a combination of eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA), appeared beneficial and well tolerated for women with postpartum depression.

Depressive symptoms significantly improved in all three dosage groups from baseline.

THESE AUTHORS ALSO NOTE:

Postpartum depression (PPD) affects 10–15% of women after childbirth, and is defined as a major depressive episode that begins within 1 month of delivery.

“PPD has broad, long-lasting consequences for a woman and her infant.”

“Children of affected mothers may experience impaired attachment, and PPD may adversely affect behavioral and cognitive development.”

“Omega-3 fatty acids are polyunsaturated essential fatty acids associated with health benefits in humans.”

"The American Heart Association recently provided guidelines for adult intake for the prophylaxis and treatment of cardiovascular disease, recommending regular fish intake for the general population and the use of omega-3 fatty acid supplements for those with coronary artery disease and hypertriglyceridaemia."

Long-chain omega-3 fatty acids eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA) are found in fish.

"Omega-3 fatty acids are necessary for optimal neurodevelopment in utero and in infants, among other benefits for pregnancy and infant health outcomes."

"Because of the developing baby's high demand for omega-3 fatty acids in utero, maternal essential fatty acid stores of essential fatty acids progressively decrease during pregnancy."

"Omega-3 fatty acid supplementation may confer benefits for the pregnancy outcome."

Preterm deliveries are lower in women who received omega-3 fatty acid supplementation (2.8 g/day) compared with controls.

There are higher prevalence rates of major depression in general and postpartum depression with reduced seafood consumption.

Omega-3 fatty acids are an adjunctive treatment for major depression.

"Because of the demands placed on the mother's supply of omega-3 fatty acids during pregnancy and lactation, PPD may be particularly responsive to treatment with DHA and EPA."

This study was an 8-week trial of a combination of EPA and DHA in 16 women with PPD.

Participants were women with a major depressive episode within 1 month of live childbirth.

In this study, there were no serious adverse events, and omega-3 fatty acids were well tolerated.

DISCUSSION

These authors "found that women experienced a significant improvement in depressive symptoms while receiving an intervention of a nutritional supplement with broad health advantages."

The "improvements observed among all treatment groups suggest omega-3 fatty acids may have efficacy as a treatment for PPD."

“We find these findings especially compelling, considering that omega-3 fatty acids offer health benefits to the mother, and also to her infant if she is breastfeeding.” **[Important]**

The “high recurrence rate of PPD after subsequent deliveries supports that an ideal treatment is one that can be safely utilized during pregnancy.”

Many women diagnosed with PPD report the onset of depression during pregnancy.

There are a “growing number of reports of neonatal withdrawal or toxicity syndromes in neonates after in utero exposure to antidepressants.”

[Very Important]

In this study, women improved significantly from omega-3 supplementation.

“These results support the inclusion of omega-3 fatty acid supplements among treatments that deserve further study for PPD.”

“Clinical use for PPD is attractive, as there are health benefits and low risks of modest doses of omega-3 fatty acids for perinatal women and their babies.”

KEY POINTS FROM DAN MURPHY

- 1) Postpartum depression affects 10–15% of mothers.
- 2) Postpartum depression has broad, long-lasting consequences for a woman and her infant.
- 3) Omega-3 fatty acids eicosapentaenoic acid and docosahexaenoic acid, are beneficial and well tolerated for women with postpartum depression.
- 4) Depressive symptoms significantly improved in women with postpartum depression with omega-3 supplementation for 8 weeks.
- 5) American Heart Association guidelines for the use of omega-3 fatty acids notes prevention of cardiovascular disease, recommending regular fish intake for the general population and the use of omega-3 fatty acid supplements for those with coronary artery disease and hypertriglyceridaemia.
- 6) “Omega-3 fatty acids are necessary for optimal neurodevelopment in utero and in infants, among other benefits for pregnancy and infant health outcomes.”
- 7) “Because of the developing baby's high demand for omega-3 fatty acids in utero, maternal essential fatty acid stores of essential fatty acids progressively decrease during pregnancy.”

- 8) Omega-3 fatty acid supplementation confers benefits for pregnancy outcomes.
- 9) Because of the demands placed on the mother's supply of omega-3 fatty acids during pregnancy and lactation, postpartum depression may be particularly responsive to treatment with DHA and EPA.
- 10) Women experience significant improvement in depressive symptoms while receiving omega-3 nutritional supplementation.
- 11) These findings are especially compelling because omega-3 fatty acids offer health benefits to the mother, and also to her infant if she is breastfeeding.
- 12) Drugs used to treat postpartum depression are associated with neonatal toxicity.
- 13) Omega-3 fatty acid supplements should be included in the treatments for postpartum depression.
- 14) Clinical use of omega-3 fatty acids for postpartum depression has many health benefits and low risks for perinatal women and their babies.