

Medications and More Newsletter

Editor's Notes:

Happy Father's Day!

New this month: We have a new Independent Study Module (ISM) entitled, *Ethics* and the Board Certified Lactation Consultant, by Barbara Wilson Clay, IBCLC. This ISM provides 1.0E CERPs. For more information, <u>click here.</u>

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Guest Author - Kathleen Kendall-Tackett, PhD, IBCLC

Inflammation And Depression in Puerperal Women: New Research from Psychoneuroimmunology

Research on puerperal depression has recently taken an interesting turn. Over the past decade, researchers in the field of psychoneuroimmunology (PNI) have found that systemic inflammation plays a key role in the etiology of depression. When inflammation was first identified as a risk factor for depression, it was generally seen as one risk factor among many. More recent research, however, has revealed that stress increases inflammation and that inflammation is the likely mechanism by which stress leads to depression. These recent studies constitute an important paradigmatic shift: inflammation is not simply a risk factor; it is the risk factor that underlies all the others. Inflammation is generally assessed in these studies by measuring serum levels of proinflammatory cytokines, the messenger molecules of the immune system: interleukin-1β (IL-1ß), interleukin-6 (IL-6), and tumor necrosis factor- α (TNF- α).

There are a number of plausible explanations for why inflammation might increase the risk for depression. First, when inflammation levels are high, people experience classic symptoms of depression such as fatigue, lethargy, and social withdrawal. Second, inflammation increases levels of cortisol—a stress hormone that is often elevated in depressed people. And finally, inflammation decreases the neurotransmitter serotonin by lowering levels of its precursor, tryptophan.

Pregnant and postpartum women are particularly vulnerable to this effect because their inflammation levels normally rise during the last trimester of pregnancy—a time when they are also at high risk for depression. Inflammation serves several important functions in pregnant women including ripening the cervix and protecting them from infection postpartum. However, these factors that protect them in one sense also increase risk. Moreover, stressors common to new mothers, such as sleep disturbance, pain and psychological trauma, also increase inflammation.

These findings suggest that lowering stress and inflammation can reduce depression risk. Breastfeeding attenuates the stress response, thereby protecting maternal mood. This is only true, however, when breastfeeding is going well. Breastfeeding problems, such as pain, increase the risk of depression.

In addition, many of the treatments for depression with established efficacy are also anti-inflammatory. These include antidepressants, such as SSRIs and St. John's Wort, and the long-chain omega-3 fatty acids (EPA and DHA).

Guest Author continues

Several large epidemiological studies have found that populations that consume large amounts of dietary EPA and DHA have lower rates of depression and other affective disorders. EPA, particularly, blocks the actions of proinflammatory cytokines and has been used to treat depression and bipolar disorder (often by increasing the effectiveness of an existing medication regimen).

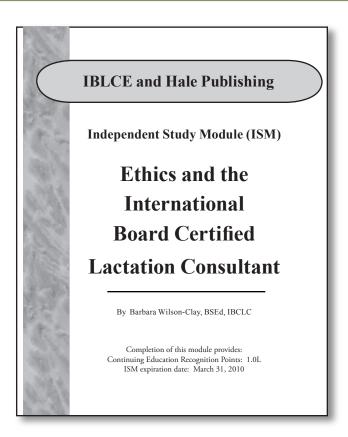
In summary, recent research has identified inflammation as a key factor in depression and it is triggered by physical and psychological stress. Two approaches may prevent depression or reduce its severity: lowering maternal stress and reducing inflammation. Breastfeeding has been shown to reduce stress and protect maternal mood—when it's going well. For mothers who are having difficulties, referrals to lactation specialists can not only resolve breastfeeding problems, but may also protect maternal mental health. Proactive use of anti-inflammatory treatments may also increase mothers' resilience to the stresses of new motherhood and prevent subsequent episodes of depression.

To read more on this topic, see:

Kendall-Tackett, K.A. (2007). A new paradigm for postpartum depression: The central role of inflammation and how breastfeeding and anti-inflammatory treatments decrease risk. International Breastfeeding Journal, 2, 6, www.InternationalBreastfeedingJournal.com.



Ethics Independent Study Module is available for purchase:



The purpose of this module: To assist lactation consultants in conducting their practice in an ethical manner.

On completion of this module, readers should be able to:

- 1. Describe general principles of ethics.
- 2. Explain the appropriate ethical behavior in regards to conflict of interest, selling products in a professional setting, gifting, relationships with manufacturers, and issues related to intellectual property.
- 3. Identify tenets from the IBLCE Code of Ethics.

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This module expires March 31, 2010. The answer sheet, evaluation form, and payment must be submitted before that date to obtain continuing education credits.

Author: Barbara Wilson-Clay, BSEd, IBCLC Copyright: 2007 Total Pages: 18 <u>Click here to o order Ethics and the IBCLC.</u>