# Global Rate of Paternal Depression Surpasses 10%

#### BY KATE JOHNSON

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FROM JAMA

A significant number of men experience prenatal and postpartum depression, and the rate is marginally higher in the United States than in other countries, according to a metaanalysis of 43 studies.

The overall rate of paternal depression was 10.4%, with a U.S. rate of 14.1% vs. 8.2% in other countries.

In addition, the study reported maternal depression at a rate of 23.8%, with a moderate positive correlation between maternal and paternal depression.

The findings suggest that "more efforts should be made to improve screening and referral, particularly in light of the mounting evidence that early paternal depression may have substantial emotional, behavioral, and developmental effects on children," noted lead author James F. Paulson, Ph.D., and his col-

league Sharnail D. Bazemore of the department of pediatrics at Eastern Virginia Medical School in Norfolk (JAMA 2010;303:1961-9).

The correlation between paternal and maternal depression "also suggests a screening rubric – depression in one patient should prompt clinical attention to the other," the investigators wrote.

- Major Finding: An overall 10.4% rate of paternal
- depression correlated with maternal depression.
- **Data Source:** A meta-analysis of 43 studies involving 28,004 new and expectant fathers from 16
- countries.

Disclosures: None was reported.

The meta-analysis included studies from 16 countries and involved 28,004 new and expectant fathers aged 18 years or older.

Most studies (n = 40) assessed depression with a self-report rating scale, while

3 used a semistructured or structured interview. In addition to reporting paternal depression, 35 of the studies also reported rates of maternal depression, with 14 of them reporting the correlation between paternal and maternal symptoms.

The primary outcome was the point prevalence rate of paternal depression, and the secondary outcome included

rates of depression of female partners. Regarding different time periods in relation to the birth, the 3- to 6month postpartum period showed the highest rate of paternal (25.6%) and maternal

(41.6%) depression, "although the small number of studies measuring paternal depression during this period suggests cautious interpretation," they noted.

The studies in the meta-analysis showed a wide variation in rates of de-

pression for both fathers and mothers; however, "since recent national data on base rates of depression in men place the 12-month prevalence at 4.8%, this suggests that paternal prenatal and postpartum depression represents a significant public health concern," they wrote.

The authors suggested various potential causes of differences they observed between studies in the meta-analysis, including diverse measures of depression, locations, and sample characteristics. Another possible source "is the liberal inclusion of cases that can be classified as minor depression," they added. The correlation between paternal and maternal depression suggests that "prevention and intervention efforts for depression might be focused on the couple and family rather than the individual. Future research in this area should focus on parents together to examine the onset and joint course of depression in new parents," Dr. Paulson and Ms. Bazemore said.

# Depressed Mood Is Related To High Intake of Chocolate

### BY MARY ANN MOON

FROM ARCHIVES OF INTERNAL MEDICINE

Depressed mood was significantly related to higher consumption of chocolate in a cross-sectional study of 931 men and women.

A cross-sectional design precludes drawing conclusions as to causality or even directionality of the association, so this study could not determine which of the two comparators – depressed mood or chocolate intake – precedes, much less causes, the other, said Dr. Natalie Rose, of the department of obstetrics and gynecology, University of California, Davis, and her associates.

A recent exploratory study of sweets in general noted that subjects with depressive symptoms showed a higher than average intake of chocolate.

That study was confined to women only, used a single measure of chocolate consumption, and used a measure of mood symptoms that is not widely recognized.

In contrast, Dr. Rose and her colleagues examined this possible link using a larger sample of both men and women, two measures of chocolate consumption (a food frequency questionnaire and another questionnaire that quantified chocolate intake specifically), and the Center for Epidemiological Studies–Depression Scale (CES-D) to measure mood (Arch. Intern. Med. 2010;170:699-703).

A CES-D score of 16 or higher indicates possible depressed mood, while a score of 22 or higher indicates major depression. In this study, subjects with scores above 16 were found to eat significantly more chocolate than subjects with lower scores (8.4 vs. 5.4 servings per month). A serving was considered to be "one small bar or 1 ounce (28 g) chocolate candy." Those with a score of at least 22 ate an average of almost 12 servings per month.

To ensure that this association was specific to chocolate, the investigators looked for similar links between depressive symptoms and the intake of fat, carbohydrates, and total energy.

There were no significant associations. In addition, no link was found between mood and the consumption of other antioxidant foods, such as fish, coffee, caffeine, or fruits and vegetables.

There are several possible explanations for the association between depressive symptoms and high chocolate consumption.

Depression could stimulate chocolate cravings as a means of self-medication. Or a high intake of chocolate could contribute to depressed mood. Or some unknown factor such as oxidative stress or inflammation could produce both depressive symptoms and chocolate cravings.

Alternatively, the association might be more complex, with chocolate itself producing mood-elevating effects but with some constituent that is frequently combined with chocolate (such as trans fats) neutralizing or reversing this benefit. Or it might be that chocolate intake is analogous to alcohol intake, in that it produces short-term mood elevation but longer term depressive effects.

"Distinguishing among these possibilities will require different study designs," Dr. Rose and her associates said.

This study was funded by the National Heart, Lung, and Blood Institute; the National Institutes of Health; and the University of California, San Diego, General Clinical Research Center. No financial conflicts of interest were reported.

## Depression Is Common in Mothers of Kids With Epilepsy

### BY PATRICE WENDLING

FROM THE EPILEPSY AND DEPRESSIVE DISORDERS CONFERENCE

CHICAGO – Depressive symptoms are common in mothers of children with newly diagnosed epilepsy, and they follow four distinct trajectories, new data suggest.

Researchers in Ontario evaluated 339 mothers of children aged 4-12 years with new-onset epilepsy who were en-

Major Finding: The prevalence of women with depressive symptoms, as measured using the Center for Epidemiological Studies Depression scale, was 38% at baseline, 30% at 6 months, 32% at 12 months, and 30% at 24 months. Data Source: A study of 339

mothers of children aged 4-12 years with new-onset epilepsy. **Disclosures:** The study was supported by the Canadian Institutes of Health Research. The authors reported no conflicts of interest.

rolled in the national, prospective Health-Related Quality of Life of Children With Epilepsy Study (HERQULES).

About one-third of the mothers were at risk for clinical depression during the first 24 months after diagnosis, Mark Ferro reported in a poster at the conference. The prevalence of women with depressive symptoms, as measured using the Center for Epidemiological Studies Depression Scale, was 38% at baseline, 30% at 6 months, 32% at 12 months, and 30% at 24 months.

Previous cross-sectional studies have

reported similar rates, but the surprise finding was that maternal depressive symptoms followed four distinct trajectories: high decreasing, moderate increasing, borderline, and low stable, said Mr. Ferro, a doctoral student in epidemiology and biostatistics at the University of Western Ontario, London.

The researchers had anticipated just three trajectories, but found that some women fell in and out of risk for depression. Although the reason for this borderline trajectory is unclear, Mr. Ferro suggests that it may reflect the unpredictable nature of epilepsy, or a family's search for effective pharmacologic or cognitive-based therapies to manage their child's illness.

"There's a big trial-and-error period during the first 2 years after diagnosis," he said.

At several points during the conference, speakers noted the profound effect that witnessing a seizure and living with epilepsy can have on families. A subsequent unpublished study by the same group found that as a mother's depressive symptoms increase, a child's quality of life decreases.

"It's not just the child suffering the seizures, but the entire family," Mr. Ferro said. "In terms of putting the patient at the center of care, we're also asking physicians to put the family at the center of care.

"We're hoping that by addressing the mother's mental health status, clinicians can improve the quality of care for children with epilepsy."

The conference was jointly sponsored by the EDDC and the office of continuing medical education of Elsevier, publisher of CLINICAL PSYCHIATRY NEWS.