

# Abuse Factors Predict Postpartum Depression

BY SUSAN LONDON

FROM THE ANNUAL MEETING OF THE SOCIETY FOR PEDIATRIC AND PERINATAL EPIDEMIOLOGIC RESEARCH

SEATTLE — Abuse is prevalent in the period surrounding pregnancy and is associated with a higher rate of postpartum depression, new data show. But certain factors might help identify abused women who are at highest risk and might benefit from targeted intervention.

In a national survey of Canadian women who had had a recent birth, 11% reported abuse in the past 2 years, according to study results presented at the meeting. Abused women were roughly three times more likely than their nonabused counterparts to have postpartum depression. Within the abused group, this risk was more than doubled for teenagers and women aged at least 35 years, as well as for women who were depressed before pregnancy.

## Prevalence of Abuse

Studies in recent decades have explored the issue of violence around the time of pregnancy, noted coinvestigator Patricia J. O'Campo, Ph.D. "Yet, despite that, we actually don't have good estimates of prevalence," she said. Reasons include variation in the types of abuse captured, the time period and perpetrators assessed, and the women studied.

In the national, population-based Maternity Experiences Survey, Dr. O'Campo and her colleagues used census data to identify Canadian women with a singleton infant aged 5-14 months. A random sample was selected for a computer-assisted telephone interview that asked whether they had experienced any of 10 types of abuse (actual or threatened) in the past 2 years, as well as questions from the EPDS (Edinburgh Postnatal Depression Scale).

Interviews were conducted with 6,421 women, who represented a weighted sam-

ple of 76,508 women, according to Dr. O'Campo, an epidemiologist at the University of Toronto. Most were 5-9 months post partum (average, 7.3 months).

Fully 11% of the women reported experiencing abuse in the past 2 years. In stratified analyses, the prevalence was highest among teenagers (40%); women with an annual income less than \$20,000 (28%); aboriginal women (30%); and nonmarried, noncohabiting women (35%). By far, the leading perpetrators were partners (reported by 6% overall), followed by family members (2%), strangers/others (2%), and friends (1%).

Abused women most often said they had been pushed, grabbed, or shoved; were threatened with being hit; or had something thrown at them, noted Dr. O'Campo. And they most commonly reported that just one incident of abuse had occurred, and that the abuse had taken place only before pregnancy. The patterns of abuse type, timing, and perpetrator were generally the same among low-income and nonmarried subgroups. But those two subgroups differed with respect to the frequency of abuse, more commonly reporting two to five incidents or six or more.

"The 11%, I think, is significant," she said, adding that previous population-based studies have found prevalences of less than 5% for 1-year periods. "But I think it could be higher, actually, if we had had a full spectrum of abuse items that were asked about," such as control and restriction, she added. The diverse nature of perpetrators suggests that future research should not focus solely on partners, according to Dr. O'Campo.

"Contrary to common perception," abuse is not necessarily a high risk around the time of pregnancy; "in fact, it's lower than, say, the abuse that was experienced before pregnancy," she observed. "It would be important for future studies to be able to ask questions so that

we know more about why abuse might decline during pregnancy," she said. For example, "is it because the pregnancy is disclosed and known, and that tends to be protective, or that partners change?"

## Predictors of Postpartum Depression

"Exposure to family violence is increasingly understood to be an important risk factor for adverse pregnancy outcomes," said coinvestigator Patricia A. Janssen,

years or older (OR, 2.33) relative to their peers aged 20-34 years. In addition, the risk was more than twice as high for abused women who had depression before pregnancy (OR, 2.23).

Marital status, education, employment, ethnicity and immigration status, income, and whether pregnancy was planned did not significantly influence this outcome among abused women.

In adjusted analyses that focused on the timing of abuse, women who were abused only before pregnancy (OR, 3.28), starting after pregnancy (OR, 4.76), or before, during, and after pregnancy (OR, 6.62) were all significantly more likely to have postpartum depression than were their nonabused peers. The results were generally the same when women with preexisting depression were excluded.

When analyses were restricted to just the threatened types of abuse, risk was significantly elevated among women whose abuse occurred only before

**VITALS** **Major Finding:** Some 11% of women reported abuse in the period surrounding pregnancy. Abused women who were younger than age 20 or were aged 35 or older, or who were depressed before pregnancy, were more than twice as likely to have postpartum depression.

**Data Source:** The Maternity Experiences Survey, a population-based survey of a weighted sample of 76,508 women who were an average of 7 months post partum.

**Disclosures:** Dr. O'Campo and Dr. Janssen reported having no relevant conflicts of interest.

Ph.D. "But its role in the development of postpartum depression has not been well studied yet."

Certain psychosocial factors have been linked to the risk of family violence and postpartum depression, questioning the relationship between the two, she added.

Overall, 8% of the women in the survey screened positive for postpartum depression (defined as an EPDS score of at least 13 of 30), reported Dr. Janssen, an epidemiologist at the University of British Columbia in Vancouver. The rate was nearly threefold higher among abused women (17%) than among their nonabused counterparts (6%).

Within the abused group, the risk of postpartum depression was more than doubled for women who were younger than age 20 (odds ratio, 2.29) or aged 35

pregnancy (OR, 2.29), began during pregnancy and continued afterward (OR, 2.62), started after pregnancy (OR, 5.28), or occurred before, during, and after pregnancy (OR, 10.52). Again, the results were generally the same when women with preexisting depression were excluded.

"Women who are abused women have higher rates of postpartum depression," Dr. Janssen said. "I hope this will encourage people to screen more for abuse, if they recognize that it's a risk factor for depression."

Those at the extremes of childbearing age or with preexisting depression appear to be especially vulnerable. Thus, "if we do know that women are abused, we should be paying particular attention to the risk for postpartum depression among those women." ■

# Women Smokers at Greater Risk for Urinary Abnormalities

**VITALS** **Major Finding:** Women who are current smokers are 3 times as likely to report problems with urinary frequency and 2.7 times as likely to report problems with urinary urgency as women who do not smoke.

**Data Source:** Population-based study of a representative sample of 1,790 Finnish women.

**Disclosures:** Dr. Tikkinen said that he had no conflicts. Pirkanmaa Hospital District and Pfizer funded the study through unrestricted grants.

BY ROBERT FINN

FROM THE ANNUAL MEETING OF THE AMERICAN UROLOGICAL ASSOCIATION

SAN FRANCISCO — A Finnish study has found a strong association between tobacco smoking and urinary storage symptoms in women.

Women who smoke are 3 times as likely to report abnormal urinary frequency and 2.7 times as likely to report abnormal urinary urgency, compared with non-

smokers, Dr. Kari A.O. Tikkinen of Helsinki University Central Hospital said at the meeting.

The study involved survey responses from a nationally representative sample of 1,790 Finnish women aged 18-79 years (mean age 42 years). Investigators assessed urinary symptoms from responses to questions on the American Urological Association Symptom Index and the Danish Prostatic Symptom Score questionnaires.

In addition to urinary frequency and urgency, the women were asked about nocturia, stress incontinence, and urgency incontinence. The researchers found that only frequency and urgency were significantly associated with smoking.

They defined urinary frequency as abnormal if the women reported their longest interval between each urination was less than 2 hours. They defined abnormal urgency as often or always experiencing an imperative urge to urinate, nocturia as two or more voids per night, stress incontinence as often or always experiencing leakage of urine when physically active, and urgency incontinence as often or always experiencing an urge so strong that urine starts to flow before reaching the toilet.

In the multivariate analysis, the researchers controlled

for a large number of potential confounders. These included 33 different physician-diagnosed medical conditions, 26 different classes of prescription medications, lifestyle and social demographic factors such as education and income, and anthropometric and reproductive factors such as body mass index and menopausal status.

About half of the women had never smoked, a quarter were current smokers, and a quarter were former smokers. The former smokers also had a significantly higher risk of abnormal urinary frequency and urgency than the never smokers, although not to the extent of current smokers. They were 70% more likely to experience abnormal frequency and 80% more likely to experience abnormal urgency than never smokers.

The researchers also found a dose-response effect. Compared with light smokers (1-10 cigarettes per day), heavy smokers (10 or more cigarettes per day) were 2.2 times as likely to experience abnormal frequency and 2.1 times as likely to experience abnormal urgency.

Studies such as this can only show association, not causation, but Dr. Tikkinen said at a press briefing the fact that the researchers controlled for so many potential confounders strengthens the case for causation. ■