Research As It Happens

August 15, 2013

A look inside the research process

Studies look at pregnancy outcomes in women with serious mental illness

Birth rates among young women have been going down by about 35% over the last decade. But among young women with serious mental illness, such as schizophrenia, the birth rate is actually increasing.

These women also have higher rates of other health concerns—such as gestational diabetes, hypertension, and pre-eclampsia—as well as babies that are born either too small or too big and more preterm births.

Interestingly, women with schizophrenia are getting prenatal care and they're seeing psychiatrists, obstetricians, and family physicians, even at higher rates than women without mental illness, according to Dr. Simone Vigod, a scientist at Women's College Research Institute and a psychiatrist at Women's College Hospital in Toronto.

Unfortunately, the health system is not doing a great job of preventing poor outcomes for these women in pregnancy, she said.

For this reason, Simone is working on a couple of studies: the Schizophrenia Understood in the Perinatal Period Psychiatric Outcomes and Reproductive Trajectories (SUPPORT 1 and 2).

Simone Vigod

What is the research about?

These two studies use Ontario provincial hospital-based and physician service use information housed at the Institute for Clinical Evaluative Sciences in Toronto, Ontario. The purpose is to

find out what are the physical and mental health outcomes of women with serious mental illness.

For SUPPORT 1, which is funded by the Schizophrenia Society of Ontario, Simone is specifically looking at pregnancy outcomes. For SUPPORT 2, which is funded by Canadian Institutes of Health Research (CIHR), she is looking at what happens to these women during pregnancy from a mental health perspective.

Who conducted the research?

Dr. Vigod is the Principal Investigator on the project. She is a psychiatrist at Women's College Hospital in Toronto, specializing in women's mental health during pregnancy and the postpartum period. She is a scientist at the Women's College Research Institute and assistant professor at the University of Toronto, and is also an adjunct scientist at the Institute for Clinical and Evaluative Sciences. She has post-graduate research training in clinical epidemiology and has expertise in women's mental health and population-based health services research.

Her co-investigators on the project include: Dr. Paul Kurdyak; Dr. Cindy-Lee Dennis; Dr. Andrea Grunier; Ms. Alice Newman; Dr. Mary Seeman; Dr. Paula Rochon; Dr. Geoffrey Anderson; Dr. Sophie Grigoriadis; and Dr. Joel Ray.

What was done for the study?

Simone and her team used Ontario provincial health administrative data from 2002 to 2011 to identify all pregnant women with schizophrenia living in Ontario and evaluate their pregnancy-related health outcomes. They then compared women with schizophrenia and those who did not have schizophrenia, looking at a number of specific measures of pregnancy-related health.

What are the findings of this study?

In part 1 of the SUPPORT study, Simone found that women with schizophrenia had higher rates of pregnancy-related medical problems such as pre-eclampsia and blood clots. Also, their infants were more likely to be born preterm as well as either too small or too large. These differences remained even after the researchers accounted for important differences between the two groups that might otherwise explain their different pregnancy-related health outcomes.

The mothers with schizophrenia also required more intensive hospital resources, including more caesarean sections and admissions to the intensive care unit, and these mothers and their babies had more hospital readmissions.

In part 2 of the study, Simone found that women with schizophrenia who became pregnant make up a diverse group.

"Some of them are actually quite well and quite stable, and some of them are really not well and stable," she explained. "And essentially, what predicts how these women will do in pregnancy is how stable they were to begin with, which is not surprising."

Although the findings were not a surprise to her, Simone said that physicians in general, when they hear about her findings, don't seem to get the message that many women with serious mental illness are getting pregnant and having babies without negative outcomes. They seem to feel that they should be counselling these women not to get pregnant.

What are the expected outcomes of the research?

Simone said she would like to use the findings of this study to show that many women are doing really well during and after they get pregnant, but that there are specific areas in obstetrical and fetal health that could be improved. As well, there are ways to identify those women who are most at risk of becoming unstable during the postpartum period.

"I don't dispute that if a woman is substance using and actively psychotic, and she doesn't have a place to live, that is not a good time for her to have a baby," she explained. "But that's not the whole group of women. And it's actually not reflective even of the majority of these women."

"I think that's going to be really important, because I think that, in general, having a diagnosis or serious mental illness can result in assumptions being made about a woman's capacity to be a parent. So I would really like to use these data to show that women with serious mental illness are not all the same."

"I would hope to use the information to broaden the public perspective of what serious mental illness and motherhood can mean, to open up awareness," she said. "Some women have serious mental illnesses and haven't told their obstetrical provider because they're afraid of being told to end their pregnancies or that their children will be taken away. And so they're trying to hide it."

Simone said she hopes her research will lead to several outcomes. First, she hopes to share her findings with practitioners and women with mental illness so that they'll be able to make informed decisions about whether or not to continue with the pregnancy and the kind of supports they'll need.

Second, she hopes her research will lead to the use of interventions — either new ones or modifications of established ones — to help these women make lifestyle changes that will help them reduce their risk of health complications in pregnancy.

Third, she hopes to develop new models of care, such as creating networks between obstetricians, family doctors, and psychiatrists, to manage these women during pregnancy. For example, it would be a good idea to provide more reproductive care in schizophrenia clinics, she said.

What are the limitations of the research?

The main limitation of the SUPPORT studies is the same as their strengths, Simone explained, that they use population-based administrative data. That is, while these data include information such as mental health diagnoses and health care use,

they miss other information, such as body mass index (BMI) or substance use.

Are there any future areas to expand or build on this research?

Simone would like to address some of the limitations of using administrative data by combining her data with the Better Outcomes Registry & Network Ontario (BORN Ontario). This registry collects information for all women who give birth in Ontario, such as body weight, BMI, marital status, psychosocial outcome, and substance use.

By combining her administrative data with the BORN registry data, Simone hopes to identify the factors that predict good or bad pregnancy outcomes and the factors that modify this effect.

“The idea in my mind is to go from supporting these women to finding out how we can actually optimize their care. And I think, down the line, we’re going to be looking at intervention studies,” she explained.

Author:
Rossana Coriandoli