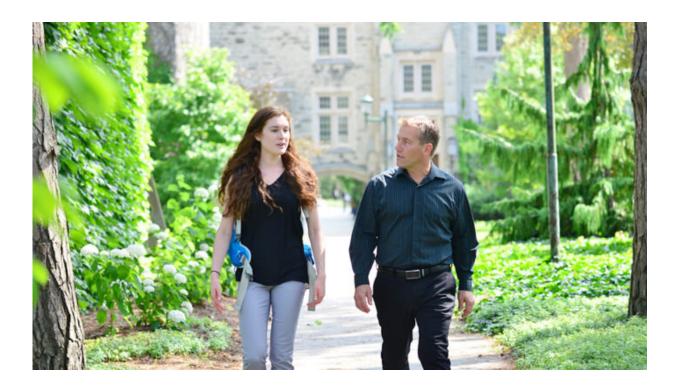# Depression is the single largest predictor of substance use during pregnancy

August 8 2019

Researchers Rachel Brown, and Jamie Seabrook, PhD, studied health data from 25,000 pregnant women and have shown that depression is the largest driver of substance use during pregnancy. Credit: University of Western Ontario

It is well known that tobacco, alcohol, and cannabis use during pregnancy are associated with poor birth outcomes, yet many women continue to use these substances during pregnancy.

Researchers at Western University and its affiliate Brescia University College have now shown that depression is the single largest driver of substance use during pregnancy, highlighting the need for greater supports for the mental health of pregnant mothers.

The research team analyzed health and geographical data gathered through Lawson Health Research Institute from more than 25,000 pregnant women in Southwestern Ontario.

"Pregnant women who were depressed were 2.6 times more likely to use cannabis and twice as likely to smoke cigarettes and use alcohol while pregnant," said Jamie Seabrook, Ph.D., and Associate Professor at Brescia and Western's Schulich School of Medicine & Dentistry, and Scientist at Children's Health Research Institute, a Lawson program. "We don't know when the substance use first began but we do know that it was continuing during pregnancy and that is a big risk factor for poor maternal and infant health outcomes."

The study, published in the *Journal of Neonatal-Perinatal Medicine*, is the first Canadian study with a sample size this large to show that depression during pregnancy is the primary risk factor for cannabis, tobacco and alcohol use, and is more important than education, income, or age.

"This really highlights the importance of programming for mental health, including mental health promotion strategies, psychotherapy and safe and proper medication for mental health during pregnancy," said Rachel Brown, an MSc candidate and first author on the paper. "The research shows that there is an effect later on in life as well with infants that are born preterm or low birth weight. To intervene or advocate for mental health programs for the mom, the idea is that it sets up the health of the infants later on in life."

The research team points out that this research is especially important in Canada with the recent legalization of recreational cannabis.

"Let's help women with their mental health to improve their overall health and in doing so, improve the health of their baby," said Seabrook.

  More information: R.A. Brown et al, Predictors of drug use during pregnancy: The relative effects of socioeconomic, demographic, and mental health risk factors, *Journal of Neonatal-Perinatal Medicine* (2018). DOI: 10.3233/NPM-1814

Provided by University of Western Ontario