In Canada, 1 in 6 reproductive-aged couples struggle with infertility, which the World Health Organization defines as the failure to achieve pregnancy despite 12 months or more of regular unprotected sexual intercourse. Though the source of infertility is equally likely to lie with either sex, it is often women who bear the greater physical burden associated with fertility treatments. It is therefore unsurprising that research suggests that they also experience greater emotional burden associated with infertility; in fact, some, albeit dated, research conducted in the United States suggests that as many as 30-40% of women struggling with infertility meet criteria for depressive and anxious disorders. However, research examining psychological outcomes related to infertility within Canada remains scant.

Thanks to a CIHR project scheme grant awarded in the most recent spring competition, Dr. Natalie Dayan, an internist specialized in obstetric medicine from the McGill University Health Centre, and Dr. Maria Velez an Reproductive Endocrinologist and Infertility specialist (REI) from Queen’s University, hope to further our understanding of the long-term impacts of infertility and its treatment among Canadian women. Together with the FERTILE Network, consisting of Canadian researchers from multiple disciplines, including internal medicine and perinatal epidemiology, Dayan and Velez plan to review data from 2006 to 2018 through administrative health datasets and birth registries, allowing them to examine approximately 59,500 cycles of in vitro fertilization (IVF) in 36,666 women. Using this enormous dataset, they plan to investigate three primary outcomes: 1) the prevalence of mental illness among women undergoing IVF compared to women who are not receiving any fertility treatments; 2) the rate of mental illness among women with successful versus unsuccessful IVF; and 3) the incidence of postpartum mental illness among women who receive fertility treatments compared to those who are fertile.

This project comes hot on the heels of another CIHR-funded project, led by Dayan, examining the risk of medical pregnancy complications in women who had conceived via fertility treatments versus conceived naturally, using an administrative dataset of Ontario births. This study observed that women who received fertility treatments experienced a small but significant increase in the risk of medical complications. This latest project will further contribute to our understanding of the health impact of fertility treatments.

Dayan and Velez hope this research will inform the identification of women who are at risk for mental health problems, both during and after the struggle to conceive, to facilitate early intervention. In future research, they plan to evaluate whether the Ontario Fertility Program, which provides eligible residents with government-subsidised fertility treatments, may have a positive impact on women’s mental health by helping to relieve the financial burden that unfortunately accompanies most fertility treatments. Says Velez, “Ultimately, the goal of this line of research is to improve women’s health.”