

CRITICAL REVIEW: PERINATAL MENTAL HEALTH IN HAMILTON AND MONTREAL

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INTRODUCTION

Mental health concerns experienced by individuals during or up to one year after pregnancy fall under the umbrella of perinatal mental health. Estimates suggest that one in five people will experience a perinatal mental illness at some point during their pregnancy or up to one year postpartum.¹ Racialized individuals with low socioeconomic status are at an increased risk to perinatal mental health.^{2,3} Perinatal mental illness is becoming an incredibly relevant topic in the sphere of public health and policy. Recently, the Canadian Task Force on Preventive Health Care released a recommendation against screening individuals for depression during pregnancy and the postpartum period (up to 1 year after childbirth), stating that there is low certainty of evidence for such screening measures.⁴ This received backlash, with groups like the Canadian Perinatal Mental Health Collaborative (CPMHC) speaking out.⁵ Prime Minister Justin Trudeau and the Minister of Mental Health and Addictions aim to “ensure timely access to perinatal mental health services”, as identified in a recent mandate letter.⁶ Given its current salience, this piece seeks to explore perinatal mental health programs in Ontario and Quebec, critically analyze their effectiveness, and suggest future areas of improvement.

IMPORTANCE OF INTERVENTIONS FOR PERINATAL MENTAL ILLNESS

A growing body of research indicates a link between perinatal mental health and child health, both psychologically and biologically. Perinatal depression in pregnancy has been shown to disrupt state-regulation, sleep, autonomic stability, and neurobehavioral maturity of the newborn. Studies have also reported that the child’s motor skills may also be affected later in life, depending on the status of maternal perinatal mental health. Maternal distress may also predict behavioral problems in the first ten years of life. All of the aforementioned changes may be explained by functional and structural alterations of the brain that take place in offspring that are prenatally exposed to maternal distress. According to animal studies, this includes changes in neuronal and synaptic development in the limbic system, epigenetic changes, programming of large-scale neuronal networks, and more. Studies in humans support these findings, demonstrating that prenatal exposure to maternal anxiety or depression is associated with many aspects of child brain function, such as impulsivity, attention, and endogenous cognitive control. There are also links between offspring autonomic nervous system function and perinatal exposure to maternal mental illness. Some studies suggest that the maternal perinatal mental health affects the fetus’ immune system, gut microbiome, and increased risk of mortality

and hospitalization during the first year of life. These associations clearly outline the possible adverse effects of perinatal mental illness, suggesting the need for proper interventions against it.^{7,8,9}

SCIENTIFIC BACKGROUND

Postpartum disorders are classified into four main categories: postpartum blues (PBs), postpartum depression (PPDs), postpartum psychosis (PP), postpartum post-traumatic stress disorder (PTSD), and postpartum anxiety (PA). Perinatal mental health is crucial because it not only affects the mother’s well-being but could also impact the health and development of the baby. Much of the research focuses on epigenetic modifications such as DNA methylation, though the specific effects remain unclear.²³ One study did find that maternal mental health was a predictor of children’s epigenetic age acceleration.²⁴ As well, researchers have investigated maternal mental health in the emotional and behavioral development of the fetus, finding a correlation between maternal anxiety and anomalies in neurodevelopment, cognitive function, structural brain connectivity, and changes in the HPA-axis.²⁵ Other studies aim to understand the dynamic changes of maternal anxiety throughout pregnancy and two years postpartum, as well correlations to increased anxiety with maternal early adverse life experience.²⁶ Maternal anxiety and depression have also been examined for their roles in hypertensive disorders of pregnancy. Anxiety was linked to preterm birth and low percentile for gestational age and sex, while depression was only linked with preterm birth.²⁷ Other studies disagree on the contribution of maternal anxiety to hypertensive disorders, but suggest a novel link between maternal anxiety and the development of the maternal-fetal-placental vascular unit.²⁸ Although disagreement remains surrounding the specific effects of perinatal mental health on the fetus, researchers agree further data and research into the field is required and that supporting maternal mental health is essential.


HAMILTON PROGRAMS

To examine Hamilton’s currently offered support programs, holistically understanding the state of perinatal support services in the province of Ontario is imperative. Based on a 2021 report by the CPMHC, both Ontario and Quebec provide screening guidelines for individuals suffering from perinatal mood and anxiety disorders (PMADs). However, only Ontario has screening recommended on antenatal and perinatal records, specifically in the second and third trimesters and once more at six weeks postpartum. Nevertheless, a 2016 provincial evidence brief described specific interventions to address perinatal mental health in a public health context that Hamilton equally applies. In Hamilton, three principle methods are observed: online perinatal modules, group therapy or support groups, and 1-on-1 sessions. However, there are various challenges associated with each option. Patients reported concerns with privacy and self-consciousness among support groups, along with overall skepticism towards the intervention. Furthermore, mixed results on long-term benefits of both in-person support groups and pre-recorded educational modules have been previously reported, particularly for the latter. Support groups have been shown to improve personal adjustment and perceived self-efficacy, although due to limits in consistency, they may require coupling with additional techniques to provide true benefits. Barriers to access, including but not limited to personal preference,

medication concerns, fear of judgment, and timeliness of provided interventions have all been reported throughout the province. Systemic limitations remain rooted in said concerns, and obstacles for those at social and economic disadvantages have been consistently reported. Concerning where inequalities lie, social factors may be extrapolated with some skepticism from other provinces. A recent Manitoba study described a list of factors associated with inadequate perinatal care: northern or rural residence, young maternal age, lone parent, parity >4, short inter-pregnancy interval, receiving income assistance, and living in a low-income neighborhood. Medical conditions such as multiple birth, hypertensive disorders, and diabetes were also associated with lower odds of inadequate perinatal care. In other words, the social determinants still act as strong deterrents for mental healthcare, impairing access and willingness to seek out support for mothers requiring said services. The city of Hamilton, while governed by the Ontario healthcare system, presents unique challenges due to its demographics. As the third least affordable city in North America, Hamilton possesses a growing homeless population, including young, pregnant individuals facing the additional stress of surviving on the streets. Although the prevalence of maternal mental health in Hamilton is yet to be studied, there is reason to believe that the stringent living conditions put patients at a higher risk than the provincial standard. Despite these concerns, Nussey notes in her interviews with Hamilton care providers that most physicians are unaware of mental health services to refer their patients towards. The inaccessibility of mental health, therefore, results from both structural factors and a lack of provider knowledge outside the medical context. Ultimately, these issues underscore the need for common knowledge to customize patient care.

MONTREAL PROGRAMS

In Montreal, hospitals and independent clinics provide mental health services for pregnant women, similar to Hamilton. These include, but are not limited to, La Maison Bleue, Mama Joia, West Island Women's Centre, and more. The services vary from individual/couples therapy to support groups. The Quebec government also provides a general guide to pregnancy, childbirth, and parenthood for prospective parents known as From Tiny Tot to Toddler. Although these can still be effective, some pregnant women may require more tailored care to address all of their concerns. The Jewish General Hospital (JGH), for example, provides perinatal mental health services during pregnancy and six months postpartum. These services are tailored towards mothers who have previously sought psychiatric help and have diagnosed psychiatric disorders. However, the services are primarily reserved for mothers already followed by an OB/GYN or family doctor at the JGH. In addition to the services offered by the JGH, there is a division at the hospital dedicated to conducting research on perinatal mental health known as The CIHR Team in Perinatal Mental Health. Alongside these programs is Toi, Moi, et Bébé, a program developed by CHU Sainte-Justine, Université de Montréal, and the Observatoire pour l'éducation et la santé des enfants. This online program, akin to online modules developed in Hamilton, consists of 10 modules based on cognitive-behavioral therapy provided to pregnant women. In addition to the online platform, participants can receive phone calls by coaches throughout the program.



Importantly, the remote delivery of the program increases accessibility to mental health services in an interactive manner. However, the program is only offered in French, limiting access for immigrants or Anglophones. In fact, migrants in Canada encounter unique barriers to accessing perinatal mental health care, including cultural differences, migrant-related stressors, and accessibility/quality of care. Another population that could benefit from tailored care is the indigenous community. A 2020 meta-analysis indicated that indigenous women are at a higher risk of developing perinatal mental health conditions. The perinatal period is crucial for providing appropriate support to Indigenous mothers, especially in response to a biomedical model based on non-Indigenous perspectives and needs. In 2021, a Quebec group, the Val d'Or Native Friendship Centre, started an initiative known as Abinodjic to restructure perinatal and perinatal care for pregnant women in their center. In the program, they used a holistic model of perinatal care to incorporate cultural knowledge, healthy lifestyles, parental experiences, and support networks into perinatal care. By incorporating an “ecosystemic approach, social innovation, and cultural safety,” this initiative provided a safe space for Indigenous parents to discuss their concerns with a larger community entrenched in “lived realities.”¹ The success of the program could warrant expansion into other communities, such as those based in the Hamilton area. Alongside these successful programs, researchers based in Montreal recently started a longitudinal cohort study known as

the Montreal Antenatal Well-Being Study to identify the many intersecting biological and psychosocial factors behind perinatal mental health. The project has already released preliminary results, indicating depression and anxiety as relatively frequent conditions during pregnancy and a moderate increase in scores associated with anxiety and depression when the COVID-19 pandemic began. This study could hopefully contribute to improving services and guidelines surrounding perinatal mental health care, particularly in Montreal. As in Hamilton, there is certainly need for improvement in the access, quality, and diversity of mental healthcare options for pregnant individuals. The development of more tailored services informed by extensive research is needed in both Montreal and Hamilton.

CONCLUSION

As the CPMHC Time for Action National Report describes, Canada as a whole varies in prenatal and perinatal mental healthcare, with more than 95% of healthcare practitioners believing Canada offers insufficient perinatal mental health services. In both Hamilton and Montreal, structural barriers in access to care, such as weaknesses in group support offered in Hamilton or linguistic hurdles in Montreal's online modules, prevent said healthcare services from reaching or treating their target patients optimally. Furthermore, many individualized approaches are barred by expansion due to limitations in healthcare providers: although previously-observed success has been reported with community-based care for mothers in both cities, more options are required to fully support mothers' mental health during and after pregnancy. Canada's overall perinatal support services require improvements in accessibility, diversity, and affordability, with the biological and psychological well-being of the mother and their offspring at the forefront of incentives.

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