Antidepressant use during pregnancy

Current attitudes and knowledge translation efforts

Natalie Scime

Faculty Reviewer: Doreen Matsui, MD, FRCPC (Department of Pediatrics)

ABSTRACT

Antidepressant use during pregnancy is a widely debated and controversial topic among researchers and clinicians. Despite a wealth of studies examining the adverse outcomes and relative safety of these prescription medications, inconsistencies in study design and methodology make it challenging to draw conclusions and translate findings into clinical practice. Consequently, healthcare professionals are often uncertain about how to counsel pregnant women regarding antidepressant use, leading patients to feel unsupported and conflicted about where to receive information and how to make an informed decision. To remedy this clinical issue, many knowledge translation initiatives exist in Canada, including the Motherisk program, patient decision aids, professional handbooks, and critically appraised summaries of evidence published in scholarly journals. These endeavours represent important progress in knowledge dissemination and uptake among patients and healthcare professionals. However, further implementation and evaluation of targeted knowledge translation strategies are warranted to improve the knowledge and support necessary in making decisions regarding antidepressant use during pregnancy.

INTRODUCTION

Depression during pregnancy has been associated with detrimental outcomes for both mother and baby, including preeclampsia, preterm birth, delayed cognitive and emotional development in offspring, and unhealthy behaviours throughout pregnancy,¹ and is a major risk factor for postpartum depression.² Thus, treatment of depression is necessary to protect the health of the mother-infant dyad. Given that depression affects approximately 10% of pregnant women in Canada,³ it is imperative that healthcare professionals appropriately counsel these women on treatment with antidepressants. This is exceptionally challenging considering that this complex topic is met with much controversy in research and healthcare.

Antidepressants are the most widely studied pharmaceutical for use during pregnancy with selective serotonin reuptake inhibitors, a first-line class of antidepressants, having more than 30 000 reported pregnancy outcomes following prenatal exposure.^{4,5} Pulmonary hypertension, autism, preterm birth, cardiac defects, and congenital anomalies are among the many medical conditions that have been studied in association with antidepressant use during pregnancy.⁶ Conclusions from various studies are inconsistent, likely due to the use of varying study designs,⁷ incomplete patient reporting,⁸ difficulties translating findings to clinical significance,⁴ and the potential for confounding and detection bias.^{4,5} Further-

more, appraisal and synthesis of current evidence into clinical practice guidelines does not exist in Canada,⁷ leaving the onus on clinicians to navigate through the literature and educate themselves.

ATTITUDES OF HEALTHCARE PROFESSIONALS AND PREGNANT WOMEN

Confusing literature and the lack of authoritative guidelines has led to persistent uncertainty regarding antidepressants and pregnancy among healthcare professionals. One survey of Australian and Canadian primary care physicians found that physicians lacked confidence when facing decisions about antidepressant use during pregnancy.⁹ Similarly, a survey of Dutch general practitioners and pharmacists concluded that substantial differences in views exist on the management of depression in pregnant women in addition to a general lack of subject knowledge.¹⁰ This uncertainty might be a product of inadequate coverage of this topic in healthcare training. A study of Saskatchewan pharmacy, nursing, and medical students found that students did not have adequate knowledge about depression and antidepressants during pregnancy.¹¹ Moreover, students demonstrated some apprehension towards pregnant patients with depression; after reading vignettes, several students agreed with statements about feeling nervous around the patient or finding her difficult to talk to.¹¹

It is ultimately pregnant women who suffer from healthcare professionals' lack of knowledge and confidence. Pregnant women have reported a lack of direction and reassurance from their physician on whether to continue antidepressants,^{12,13} and have described physicians as appearing uncomfortable during such discussions.¹³ It is therefore understandable that pregnant women faced with decisions regarding antidepressant use consult multiple sources before making a decision,¹² with approximately 65% of women retrieving information from the internet.¹³ This absence of professional support is particularly alarming given the high decisional conflict attached to antidepressant use during pregnancy.¹⁴ Decision-making is difficult for women because of considerations in weighing their own health versus their infant's health, uncertainty about the impact of antidepressant use on their fetus, negative external influences (ie, unsupportive partners, families, friends), and emotional distress.¹⁴ Additionally, negative or frightening information received early on from professional or lay sources is subsequently hard to erase with more positive, reassuring counselling as evident by mothers' continued feelings of worry and guilt and avoidance of antidepressant use.^{12,13} Clearly, a need exists for knowledge translation (KT) activities targeted towards both mothers and healthcare professionals to increase the knowledge and support necessary for informed decision-making.

CURRENT KNOWLEDGE TRANSLATION ACTIVITIES

To address the need for KT in this area, many initiatives are ongoing in Canada. One of these is the internationally renowned Motherisk program established at the Hospital for Sick Children. Motherisk is a teratogen information centre that operates a national telephone hotline, a face-to-face clinic, and a wealth of online resources that provide a distillation of current evidence, available to both the public and healthcare professionals (<http://www.motherisk.org>). Motherisk receives thousands of calls annually and estimates that 12% of callers inquire about antidepressant use.¹² Women that call this hotline receive evidence-based counselling from trained Motherisk counsellors for free.¹⁵ This service is also cost effective, with an estimated annual savings of approximately \$10 million.¹⁶

Despite receiving evidence-based information about antidepressants, women may still experience high decisional conflict in selecting the treatment for their depression. Recognizing this, Dr Simone Vigod and her colleagues at Women's College Hospital are currently recruiting mothers to evaluate an online decision aid regarding antidepressant use during pregnancy (Permission received from Dr Vigod to describe select details of decision aid in this article). Decision aids help patients make deliberated choices about healthcare options by providing evidence-based information about harms and benefits of each option and assisting patients in clarifying their personal values related to treatment outcomes and adverse effects.^{17,18} These aids complement clinician counselling and have been associated with positive effects on informed decision-making in pregnancy care.¹⁸ The decision aid designed by Dr Vigod, in consultation with pregnant women to optimize user-friendliness, provides risks and benefits for taking antidepressants versus stopping antidepressants, asks women to rank and rate benefits and risks in accordance with their values, and allows women to identify people in their lives that make this decision easier or more difficult. Women receive a summary sheet containing this information and their responses, which they may keep to themselves or share with their healthcare provider.¹⁹ The goal of this tool is to reduce decisional conflict and, consequently, promote effective and informed decision-making. While the details of this study have not been formally published, they hold promise for providing nonjudgemental and unbiased support for women facing this decision.

Healthcare professionals are also an important audience for KT activities given their trusted role as an information source. A handbook was created in 2007 by the Centre for Addictions and Mental Health (CAMH) and Motherisk to assist healthcare professionals in providing competent counselling to pregnant women with mental health concerns. *Exposure to psychotropic medications and other substances during pregnancy and breastfeeding* is freely available through the CAMH website and contains gleaned evidence about the potential adverse effects and relative safety of several medications, including antidepressants.²⁰ To further the professional reach of critically appraised evidence, Motherisk publishes quarterly grand rounds in the *Journal of Obstetrics and Gynaecology Canada* and a monthly column in *Canadian Family Physician*, each of which is circulated to their respective population of Canadian physicians and regularly delves into antidepressant use.²¹

FUTURE DIRECTIONS FOR KNOWLEDGE TRANSLATION

The presented KT activities represent progress in promoting knowledge dissemination and uptake in this area. Nevertheless, additional initiatives likely need to be implemented, monitored, and evaluated to measure successes, determine where gaps exist, and rectify attitudes and experiences regarding antidepressant use during pregnancy.²²

Continued promotion of Motherisk through media advertising and referral can ensure that expectant mothers consult this comprehensive information source during their decision-making. If proven effective, widespread implementation of Dr Vigod's decision aid may help decrease levels of decisional conflict in these women. This tool is particularly valuable as its web-based nature allows for accessibility regardless of geographic location and the ability to continuously update the information presented as new evidence emerges. Another viable KT approach might include partnerships with online magazines, blogs, or media sources that have large followings of pregnant women or women planning pregnancy to publish evidence-based materials regarding depression and antidepressant use during pregnancy. Since a large proportion of pregnant women seek antidepressant information on the internet, harnessing this mode of dissemination can ensure that accurate information from a high-traffic online source is available. This strategy aligns with several dissemination principles such as tailoring the message and medium to the audience as well as media engagement.²³

Ensuring that healthcare professionals are comfortable and knowledgeable in providing support to pregnant women facing decisions about antidepressants is critical for improving the decision-making process. Integrating educational curriculum components that address antidepressants and depression during pregnancy as well as introduce strategies for counselling these women might reduce levels of uncertainty, discomfort, and stigma surrounding this topic. Development of clinical practice guidelines or algorithms by professional colleges that provide direction in counselling and treatment with antidepressants during pregnancy may also be useful. Replicating a survey of professionals' attitudes with a focus on Canada and inclusion of all pertinent clinicians such as pharmacists, obstetricians, psychiatrists, and family physicians would provide additional context regarding current attitudes and allow for tracking attitude changes after KT implementation. A survey of this nature is also warranted due to the low response rates (31.5%) for Canadian physicians in a former study, thus limiting the representativeness of results.⁹

The thalidomide tragedy may still have lingering impacts given the heightened awareness of the negative effects of medications during pregnancy. However, when untreated conditions are unequivocally detrimental, as is the case with depression, it is essential that healthcare professionals and women receive timely, evidence-based information. Controversy regarding the data on this topic may hinder KT attempts, and efforts towards promoting sound methodology, critically appraising evidence, and strengthening the knowledge base will assist with more seamless KT. While continued research on the outcomes and safety of antidepressant use during pregnancy is important, tailored KT efforts should be

implemented and prioritized to improve the counselling and decision-making process for everyone involved.

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