Development of an integrated and collaborative model of care for pregnant substance-using women

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LEARNING OBJECTIVES

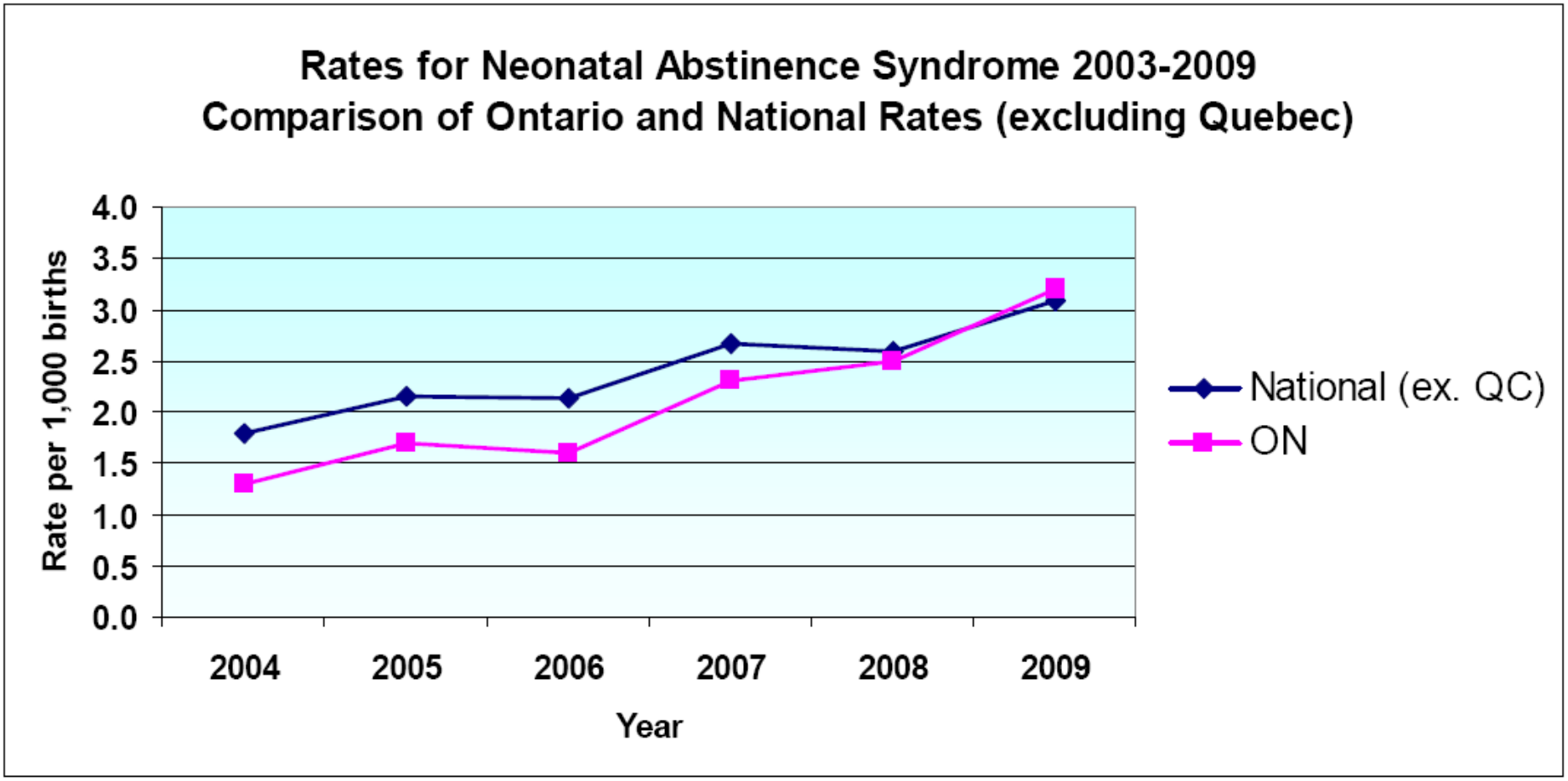
- To review the prevalence of concurrent substance use and psychiatric disorders in perinatal populations
- To describe the development of the Toronto Centre for Substance Use in Pregnancy (T-CUP) in an academic primary care setting at St. Joseph's Health Centre
- To review program outcome data to demonstrate the effectiveness of T-CUP in improving maternal and neonatal outcomes

PREVALENCE of substance use disorders in pregnancy

- **2010 U.S. National Survey on Drug Use and Health**: ~5% of pregnant women reported illicit drug use in past 30 days, 0.1% heroin use and 1-2 % non-medical use of prescription opioids
- **2009 Canadian Maternity Experiences Survey**: ~7% of women reported street drug use in 3 months prior to pregnancy, reduced to 1% once pregnancy recognized;

  ~16% of women smoked daily & ~26% drank frequently 3 months prior to pregnancy or before realizing they were pregnant, reduced to 7% daily smoking & 11% drinking in pregnancy

Rates of neonatal abstinence syndrome (NAS)



Data source – Canadian Institute for Health Information (CIHI)

POLYSUBSTANCE USE

- Commonly reported among pregnant women
  - regular **alcohol and cigarette smoking**
  - comorbid drug use: **prescription opioids**, **benzodiazepines, cocaine, and marijuana** most commonly reported
- 84.3% of methadone-maintained pregnant women had positive toxicology testing before or at delivery: cocaine (38%), other opiates (41%) and marijuana (44%) most prevalent [Ref: Brown et al., American J Obs Gyne 1998]

PREVALENCE of concurrent psychiatric disorders in pregnancy

Based on Canadian national cohort of pregnant women with opioid use disorders, high prevalence of pyschiatric comorbidities

- Depression ~50%
- Suicidal thoughts or attempts 15%
- Anxiety 20%
- Physical or sexual abuse 35%

Ref: Ordean et al. Can Fam Physician 2013.

APPROACH TO CARE: General Principles

- Pregnancy represents a window of opportunity to make a change: may not present in action phase
- Interventions should address barriers to engaging in care and focus on complex medical and psychosocial needs
- Woman-centered, nonjudgmental approach: focus on woman's needs in context of her life circumstances
- Harm reduction: reduce negative consequences of drug use – abstinence is not only goal

DEVELOPMENT OF T-CUP

- Originated in 1995 in response to need for coordinated treatment for pregnant women with substance use disorders in Toronto
- Prior to 1995, women received fragmented addiction and prenatal care leading to poor attendance at prenatal visits, as well as, lack of communication among providers
- Negative attitudes of health professionals towards pregnant women with substance use disorders also contributed to suboptimal health care

T-CUP description

- T-CUP is part of the Family Medicine Clinic/Urban Family Health Team (pharmacist, dietician) – an academic primary care clinic within a community teaching hospital in the west end of Toronto
- Team consists of lead physician, nurse clinician, social worker and on-call physicians/residents
- Evidence-based practice-informed approach to manage pregnant women with substance use disorders
- T-CUP offers integrated care by combining obstetrical and addiction care in one single visit

T-CUP components

- Close collaborations within hospital (departments of obstetrics, pediatrics, anesthesia, psychiatry)
- Individualized written care plan for each client – reviewed at monthly care planning meeting and sent to labour & delivery along with antenatal records - ensures consistent care from all health care providers
- Client contributes to care plan and receives a copy
- Community linkages to provide addiction counselling and parenting skills (Breaking the Cycle, Jean Tweed Centre) and advocacy with child protection services

T-CUP PROGRAM EVALUATION

- Inclusion criteria:
  - Pregnant women with for substance dependence
  - Received care at T-CUP and delivered at SJHC
- Exclusion criteria:
  - One-time consultation or failed to return for follow-up
  - Delivered outside of SJHC
- N: 121 women; 34 women presented in T1, 59 in T2 and 28 in T3
- Primary outcomes: change in substance use and obstetrical/neonatal outcomes

Ref: Ordean & Kahan. Comprehensive treatment program for pregnant substance users in a family medicine clinic. CFP 2011; 57: e430-e435.

MATERNAL DEMOGRAPHICS

- Mean age: 29.4 (5.5) years, range: 18-41
- Mean number of pregnancies: 3.7 (2.2), range 1-11
- Race: white 79%, asian 7%, other 14%
- Marital status: partnered 41%
- Educational level: grade school 12%, high school 54%, postsecondary education 31%
- Living status: women living with substance-using household member decreased from 34% in first trimester to 22% by delivery
- Housing status: women in stable housing increased from 82% to 84% by delivery

CHANGES IN DRUG USE

34 women presenting in first trimester

DRUG	FIRST TRIMESTER (n)	THIRD TRIMESTER (n)
Heroin	1	1
Prescription opioids	8	3*
Cocaine	10	4*
Marijuana	12	5*
Benzos	7	2*
Alcohol	16	3*
Nicotine	30	25

*Significant decrease, $p<0.05$

CHANGES IN DRUG USE

28 women presented in third trimester

DRUG	THIRD TRIMESTER (n)	DELIVERY (n)
Heroin or prescription opioids	12	5
Cocaine	11	3
Marijuana	10	2
Benzos	5	3

OBSTETRICAL AND NEONATAL OUTCOMES

Characteristic	Outcome
Vaginal delivery	88 (72.7%)
Gestational age at delivery, weeks	38.8
Birth weight, grams	3063.3 (601.1)
Birth length, cm	49.6 (3.5)
Birth head circumference, cm	33.9 (1.9)
Prematurity rate (<37 weeks GA)	15 (12.4%)
Discharge home with mom	75%
Low birth weight (<2500grams)	20 (16.5%)
Data presented as n(%) or mean (SD)	

T-CUP QUALITATIVE DATA

- Focus groups conducted by research assistant
- Questions related to experience with care received during pregnancy and delivery including strengths and suggestions for change
- 43 women invited to participate; 14 were recruited to 3 focus groups (group 1: n=3, group 2: n=2; group 3: n=9)

Ref: Lefebvre L et al. Participant perception of an integrated program for substance abuse in pregnancy. JOGNN 2010; 39: 46-52.

THEMES

- **Judgment**: non-judgmental atmosphere more likely to lead to disclosure of substance use and return for follow-up appointment; felt less marginalized and more "like normal moms"
- **Physician-patient communication**: information provided in a supportive way, did not feel rushed, felt listened to and assisted with tools/referrals
- **Team communication**: satisfied with communication among team members "if someone didn't have the answer, they made sure they got the answer for me from someone else. Which again, reinforces the team."

THEMES (2)

- **Support groups:** women recommended on-site voluntary support group

eg. Collaboration with Breaking the Cycle launched on-site group for pregnant women

- **Self-responsibility**: women appreciated taking responsibility for their behaviours – self-reporting to child protection services; women who self-reported found child welfare workers were more supportive of them

CONCLUSION

T-CUP is an integrated care program for pregnant substance-using women with demonstrated effectiveness

- significant reduction in maternal substance use including opioids, benzodiazepines, cocaine
- decrease in morbidity for neonates including prolonging gestation and increasing birth weight
- higher rate of discharge in care of their mothers

ANY QUESTIONS???

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