Contraception Practices Among Women on Opioid Agonist Therapy


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Abstract

Objective: Despite increased public awareness and use of opioid agonist therapy (OAT), there is little published data on contraception among women on methadone or buprenorphine/naloxone. This study aimed to characterize patterns of contraception use among this population.

Methods: We conducted a cross-sectional survey between May 2014 and October 2015 at 6 medical clinics, pharmacies, and community organizations in British Columbia. Trained surveyors used the Canadian Sexual Health Survey (CSHS) to collect information on contraceptive practices and barriers to health care access. Descriptive analysis was performed on the subset of women on OAT who were at risk for unintended pregnancy.

Results: Of the 133 survey respondents, 80 (60.2%) were at risk for unintended pregnancy. Among the 46 respondents with a recent pregnancy, 44 (95.7%) reported it as unintended. Of those at risk for unintended pregnancy, the most common contraceptive methods used were "no method," male condom, and depo-medroxyprogesterone at 28.8%, 16.3%, and 12.5%, respectively. Only 5% reported dual protection with a barrier and hormonal or intrauterine method. Barriers to contraception access included difficulty booking appointments with providers and cost, although 97% of all respondents reported feeling comfortable speaking with a physician about contraception.

Conclusion: We found that most respondents using OAT reported prior pregnancies that were unintended, and used less effective contraceptive methods. Health care professionals who provide addiction care are uniquely positioned to address their patients' concerns about contraception. Incorporating family planning discussions into OAT services may improve understanding and use of effective contraceptive methods. Addressing unmet contraceptive needs may enable women on OAT to achieve their reproductive goals.

Keywords: contraception; opioid-related disorders; substance-related disorders; pregnancy, unplanned

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Résumé

Objectif : En dépit de la sensibilisation accrue du public et de l'augmentation du recours au traitement par agonistes opioïdes (TAO), il existe peu de données publiées sur la contraception chez les femmes qui suivent un traitement par méthadone ou buprénorphine-naloxone. Cette étude visait à caractériser les habitudes contraceptives de cette population.

Méthodologie : Nous avons mené une enquête transversale entre mai 2014 et octobre 2015 dans 6 cliniques médicales, pharmacies et organismes communautaires de la Colombie-Britannique. Des enquêteurs qualifiés ont utilisé l'enquête canadienne sur la santé sexuelle (Canadian Sexual Health Survey) pour recueillir des données sur les méthodes contraceptives et les obstacles à l'accès aux soins de santé. Une analyse descriptive a été effectuée sur le sous-groupe de femmes suivant un TAO qui présentaient un risque de grossesse imprévue.

Résultats : Parmi les 133 répondantes, 80 (60,2 %) étaient à risque de grossesse imprévue. Parmi les 46 répondantes ayant récemment été enceintes, 44 (95,7 %) ont déclaré qu'il s'agissait d'une grossesse imprévue. Chez les femmes à risque de grosse imprévue, les méthodes contraceptives les plus utilisées étaient « aucune méthode » (28,8 %), le condom masculin (16,3 %) et l'acétate de médroxyprogestérone (12,5 %). Seulement 5 % ont signalé une double protection avec une méthode de type barrière et un contraceptif hormonal ou un stérilet. Les obstacles à l'accès à la contraception comprenaient la difficulté à fixer des rendez-vous avec les fournisseurs de soins et les coûts, bien que 97 % de toutes les répondantes aient indiqué être à l'aise de parler de contraception avec un médecin.

Conclusion : Nous avons constaté que la plupart des répondantes suivant un TAO ont signalé des grossesses imprévues antérieures et utilisaient les méthodes contraceptives les moins efficaces. Les professionnels de la santé qui offrent des soins en matière de dépendance sont dans une position idéale pour répondre aux inquiétudes de leurs patientes sur la contraception. L'intégration des discussions sur la planification familiale dans les services de TAO peut aider les patientes à comprendre et à utiliser des méthodes contraceptives efficaces. Le fait de répondre à ces

besoins contraceptifs non satisfaits pourrait outiller les femmes suivant un TAO de sorte qu'elles puissent atteindre leurs objectifs de planification familiale.

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INTRODUCTION

There is a paucity of published data on the contraception practices of women on opioid agonist therapies (OATs) in Canada. Two studies from Australia indicate poor uptake of contraception and high rates of unintended pregnancy among women enrolled in drug treatment programs.[1,2] Reasons cited by patients include perceived infertility, menstrual irregularities, inaccessibility of care, and direct effects of illicit drug use.[2] Other barriers include the stigma of being labelled an addict, guilt, and fear of judgement.[1,2] We were unable to find Canadian studies looking at these barriers.

Substance dependence is increasingly recognized as a complex neurobiological disorder characterized by physiological tolerance, psychological cravings, and withdrawal that significantly affect overall function.[3] Recently, public awareness of opioid addiction has dramatically increased owing to opioid-associated overdose and death in Canada.[4] First-line pharmacological therapies for substance use disorder include methadone (MET) and buprenorphine/naloxone (BUP). Both medications serve as OATs that bind to mu-opioid receptors to attenuate withdrawal symptoms.[5] MET has been shown to decrease use of illicit drugs, sexually transmitted infections, and mortality and to increase treatment retention and employment.[6]

It is estimated that in British Columbia, over 15 000 and 6 000 patients, respectively, are on MET and BUP as opioid agonist therapy.[7] Although women account for approximately 30% to 45% of OAT patients, reproductive health is not routinely addressed by their care providers.[8,9] Webster et al.[10] and Black et al. found that sexually active women receiving substance dependence treatment were more likely to have a history of poor reproductive health outcomes, unplanned pregnancies, and noncompliant contraception use.[1] Data from Bornstein et al. suggest a higher rate of unintended pregnancy and lower rate of contraception use among women on MET, despite mixed feelings about pregnancy among these women.[11] These outcomes may be due to the relapsing-remitting nature of substance addiction, poor socioeconomic status, and barriers to health care access.

To better understand the facilitators of and barriers to contraception use among Canadian women who use OAT, and to support evidence-informed policies and programs that identify and support those with unmet needs for contraception to equitably access sexual health services, we planned a survey study among women on MET or BUP in British Columbia.

METHODS

We conducted a cross-sectional survey between May 2014 and October 2015 using the Canadian Sexual Health Survey.[12] This tool is based on similar validated national (Canadian Community Health Survey) and international (National Survey of Family Growth) surveys and has been piloted and validated among BC populations.[12–14] We invited a range of pharmacies, medical clinics, and community organizations providing service to women on OAT to participate as recruiting sites. Six sites located in three of the five BC health authority regions agreed to participate.

Posters introducing the study were placed in the participating facilities in Vancouver, Surrey, Abbotsford, and Qualicum Beach, British Columbia, 5–7 days before surveyor arrival. We recruited consenting women who were English-speaking, aged 19 to 49, and currently on MET or BUP as OAT. Surveys were conducted as computer-assisted personal interviews including a confidential audio-computer-assisted self-entry interview portion for sensitive questions. Answers were entered on a secured tablet with trained medical student surveyors, and participants received a $5 food/beverage gift card for their time. No personal identifiers were collected. Study data were managed using REDCap electronic data capture tools hosted at the Child and Family Research Institute of British Columbia.[15]

We collected general demographic information and details of current MET or BUP use. Women reported their first, most recent, and all methods of contraception ever used, as well as patterns of use, reasons for non-use, and barriers to accessing contraception.

We used descriptive statistics for characteristics of women in our sample and for the subgroup of women at risk for unintended pregnancy. To determine this subgroup, we excluded those with the following conditions: no heterosexual intercourse over the last 6 months, currently

pregnant, unsure if pregnant, trying to get pregnant, menopausal, or sterile. To understand pregnancy intention at the time of conception among women who had been pregnant within 5 years, we used the London Measure of Unplanned Pregnancy, with a score of nine or less indicating an unintended pregnancy.[16]

Ethics approval was received from the University of British Columbia Research Ethics Board (#H14-00220) and Vancouver Coastal Research Institute (#V14-00220), and funding was provided by the College of Family Physicians of Canada.

RESULTS

Demographic Characteristics

Of the 156 women offered the survey, 133 consented to participate (response rate 85.2%). Eighty participants (60%) met the definition for currently being at risk of unintended pregnancy (Figure). Most participants were on MET (94%), self-identified as white or Caucasian, and had a household income less than $30 000 (Table 1). The mean age at first intercourse was 14.6 years, with nearly half (65; 48.9%) indicating first intercourse at 14 years or younger. The large majority had experienced a prior birth (90.6%) or a prior abortion (80.9%). Among 46 women who had a current pregnancy or pregnancy within 5 years, 95.7% reported that their most recent pregnancy was unintended.[16] The average age of first pregnancy was 18.7 years.

Contraceptive Methods

We analyzed use of contraception among the 80 women at risk for unintended pregnancy. As illustrated in Table 2, participants were able to select more than one contraception method used at last intercourse; we report the most effective method used based on current effectiveness rates.[17] We found the most effective method used at last intercourse was "no method" (28.8%), followed by male condom (16.3%) and injectable depo-medroxyprogesterone (12.5%; Table 2). Only 5% of women indicated use of the most effective methods, either the levonorgestrel intrauterine contraceptive or copper intrauterine device (IUD). Note that at the time of this survey, subdermal implants were not available in Canada. In addition, 5% reported using dual protection, defined by the World Health Organization as a barrier and either a hormonal method or an IUD.[18] This contrasts with the most commonly reported first contraceptive methods ever used: 46.3% indicated oral contraceptive pills (OCP), followed by the male condom (38.6%).

The mean age of first contraception use was 15 years (standard deviation 2.3). When asked whether their first method used was before, during, or after their first experience of intercourse, one-fifth of participants, 16 (20%), indicated before; a third, 24 (30%), during; and half, 39 (48.8%), after. These proportions varied depending on the selected contraception method; of the 37 women who selected OCP, most started after (21; 56.8%) first intercourse. However, for the

Figure. Subset of women at risk for unintended pregnancy.

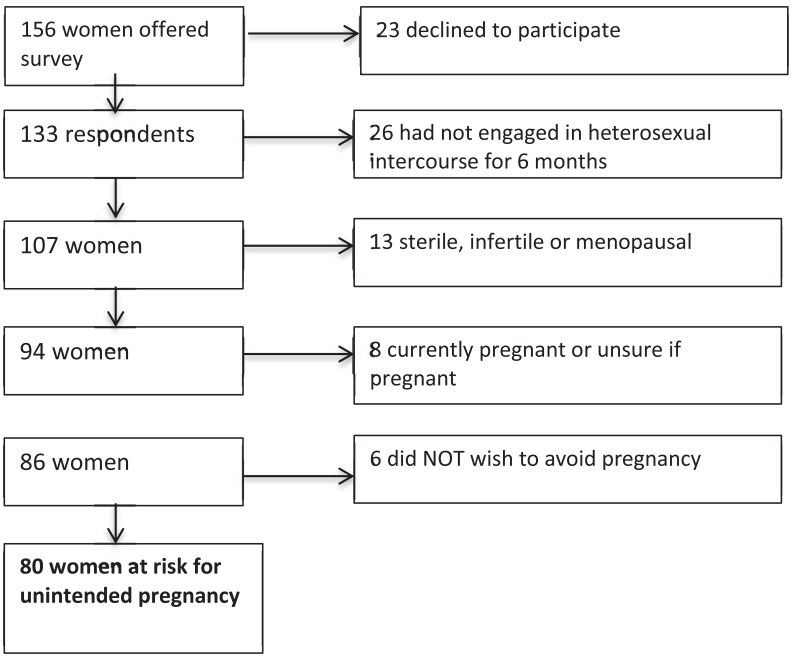

Table 1. Baseline characteristics of study participants

Characteristics	No. (%) of participants[a]	
	All; n = 133	Women at risk of unintended pregnancy; n = 80
Therapy		
Methadone	125 (94.0)	74 (92.5)
Buprenorphine/naloxone	8 (6.0)	6 (7.5)
Age, mean ± SD, y	34.3 ± 8.2	30.8 ± 7.5
Age group, y		
≤25	19 (14.3)	16 (20.0)
>25–30	29 (21.8)	21 (26.3)
>30–35	27 (20.3)	20 (25.0)
>35–40	18 (13.5)	7 (8.8)
>40–45	22 (16.5)	9 (11.3)
>45	18 (13.5)	7 (8.8)
Data collection setting		
Full-scope primary care (2 sites)	91 (68.4)	54 (67.5)
Methadone clinic (1 site)	20 (15.0)	15 (18.8)
Pharmacies (2 sites)	15 (11.3)	8 (10.0)
Women's shelter (1 site)	9 (6.8)	3 (3.8)
Age at first intercourse, y		
<12	4 (3.0)	3 (3.8)
12–14	61 (45.9)	47 (58.8)
15–17	58 (43.6)	26 (32.5)
18–20	9 (6.8)	4 (5.0)
>21	1 (0.75)	1 (1.3)
Mean ± SD age	14.6 ± 2.4	14.2 ± 2.2
Median age	15	14
Gestational information		
Any prior pregnancy	120 (90.2)	71 (88.8)
Mean ± SD no. of pregnancies	3.7 ± 2.3	3.6 ± 2.3
Median no. of pregnancies	3	3
At least 1 prior birth	90 (67.7)	46 (57.5)
Mean ± SD no. of births	2.3 ± 1.5	2.1 ± 1.5
Median no. of births	2	2
Any prior abortion	108 (81.2)	72 (90.0)
Mean ± SD no. of abortions	1.9 ± 1.1	1.9 ± 1.1
Median no. of abortions	2	2
Racial/ethnic background[b]		
White	103 (77.4)	65 (81.3)
Aboriginal	32 (24.1)	15 (18.8)
Black	3 (2.3)	1 (1.3)
Other	9 (6.8)	5 (6.3)
Marital status		
Single, never married	59 (44.4)	37 (46.3)
Living with partner/common-law	39 (29.3)	28 (35.0)
Divorced or separated	23 (17.3)	7 (8.8)
Married	7 (5.3)	5 (6.3)
Widowed	5 (3.8)	3 (3.8)

[a] Unless otherwise specified.

[b] Can identify with more than one.

Table 2. Contraception practices (n = 80)

Method	No. (%) of participants		
	First method ever used	Method used at last intercourse	Most effective method used at last intercourse
Tubal ligation/sterilization	0	9 (11.3)	9 (11.3)
LNG-IUC	0	2 (2.5)	2 (2.5)
Copper IUD	1 (1.3)	2 (2.5)	2 (2.5)
DMPA	2 (2.5)	10 (12.5)	10 (12.5)
Birth control pill	37 (46.3)	9 (11.3)	9 (11.3)
Contraceptive patch	0	0	0
Contraceptive ring	1 (1.3)	0	0
Male condom	31 (38.8)	17 (21.3)	13 (16.3)
Emergency contraception	1 (1.3)	0	0
Withdrawal/pulling out	5 (6.3)	13 (16.3)	12 (15.0)
No method	2 (2.5)	23 (28.8)	23 (28.8)
Partner vasectomy	0	2 (2.5)	2 (2.5)

DMPA: depo-medroxyprogesterone; IUD: intrauterine device; LNG-IUC: levonorgestrel intrauterine contraceptive.

Table 3. Reasons for not using a method among women at risk for unintended pregnancy (n = 23)

Reason selected[a]	No. (%) of participants
Don't care/don't worry/never got pregnant before	9 (39.1)
Forgot to use	3 (13.0)
Don't like contraception/unsatisfactory/side effects	3 (13.0)
Breastfeeding	2 (8.7)
Partner or I are subfertile/infertile	2 (8.7)
Partner doesn't like/won't use	2 (8.7)
Leave to chance/fate when to have babies	1 (4.3)
Religious objection	1 (4.3)
Worried about weight gain	0
Contraception is too expensive/can't afford	0
Don't know	1 (4.3)
Other	4 (17.4)

[a] Participants able to choose >1 reason.

male condom, most (19; 61.3%) used the contraceptive during their first intercourse. Note that only 2.5% of women reported dual protection at first intercourse.

Reasons for Contraception Non-Use

Among those who indicated "no method" used during their last intercourse (Table 3), the most commonly cited response was "don't care/don't worry/never got pregnant before." Optional comments provided included "living on streets hard to keep appointments" and "no period on methadone."

Barriers to Contraception Use

When asked "In the past 12 months, did you ever experience any difficulties getting methods you wanted to try?" and "In the past 12 months, did you ever experience any difficulties getting access to a health professional to provide a method you needed?" most (59; 73.8%) women indicated they had no difficulty. Of the 21 who did have difficulty, most (15; 71.4%) cited cost, and four (19%) indicated they did not know where to get the method. We asked participants to respond to the following statement: "In the last 12 months, cost has stopped me from using a method I wanted to use." Nearly half of respondents (39; 48.8%) "agreed or strongly agreed" with this statement.

We found that the majority of women (58; 72.5%) indicated no difficulty accessing a health care professional (Table 4). Of those who reported difficulty, most participants cited transportation problems (12; 54.5%), followed by in-office waiting (8; 40.9%) and cost (8; 36.4%). Of the four respondents who indicated "other," recorded answers included "high on drugs," "lack of communication," and "doctor refused to put in IUD after appointment had been made." We also found 70.7% of those in our sample felt most comfortable receiving contraceptive advice from a family physician, among the range of health professionals.

Table 4. Comfort with obtaining contraception from health care professionals (n = 133)

Health care professional	No. (%) of participants answering "yes" to: From which of the following health professionals would you feel comfortable getting contraceptive advice and family planning services?	No. (%) of participants answering "yes" to: From which of these professionals would you feel most comfortable getting contraceptive advice and family planning services?
Family doctor	129 (97.0)	94 (70.7)
Specialist doctor	103 (77.4)	7 (5.3)
Nurse practitioner	97 (72.9)	8 (6.0)
Public health nurse	93 (69.9)	6 (4.5)
Pharmacist	78 (58.6)	2 (1.5)
Midwife	63 (47.3)	1 (0.75)
School nurse	51 (38.3)	0
Other, don't know, or no answer	3 (2.3)	5 (3.8)

DISCUSSION

We found that women at risk for unintended pregnancy used the least effective contraceptive methods available at last intercourse. Almost one-third indicated "no method," followed by the male condom and "withdrawal/pulling out." Examination of reasons for non-use revealed that 40% of this subset selected "don't care/don't worry/never got pregnant before," even though the large majority of respondents indicated previous unintended pregnancies and therapeutic abortions. Almost all (95.7%) women who had been pregnant in the past 5 years indicated that their most recent pregnancy was unintended. Less than 5% of respondents were on effective, long-acting, reversible contraceptives, and only 5% reported using dual protection. Most women indicated geographic or time limitations and cost as the key barriers to accessing health care professionals. Cost appeared to have a greater impact on access to contraception methods, as indicated by nearly half of the study group. This was supported by our finding that 78% were supported by a government-sponsored medication plan. Women who indicated cost as a barrier to care may have been referring to the direct costs (i.e., purchasing contraception) or indirect costs (i.e., travel, lost income, or childcare).

Our findings on the unmet need and paucity of contraception use among women using OAT greatly contrast with the same descriptors of the general Canadian population, as found by Black et al.[19] Among contraception users, the most common methods used by Canadian women were condoms, OCP, and withdrawal at 54%, 44%, and 12%, respectively.[19] This trend is supported by recent Canadian survey data.[20] Black et al. found that only 15% of women did not use contraception, contrasting with nearly double that proportion (29%) in our study population.

These findings support studies that have shown that women with substance use disorders are less likely to use contraception.[1,21] Our demographic data point towards some of the socioeconomic differences between our study group and the general population. These include an earlier age of first intercourse (14.6 years) and pregnancy (18.7 years) and a high incidence of abortion. In the general population, 31% of Canadian women at the time of menopause will have had an abortion; yet our study shows that among women using OAT, 80.7% had already had an abortion.[22] We found that recent pregnancies were overwhelmingly (95.7%) unintended. The concurrent Canadian Sexual Health Survey study found only 45% of BC women reported that their most recent pregnancy was unintended.[12]

In BC, OAT providers are not required to provide other areas of primary care and may focus their practice on addiction management. Encouraging providers to incorporate women's health services may help mitigate this challenge. This is supported by studies that show improved maternal mental health among women receiving reproductive services from drug treatment centres.[23] On a public health level, early contraception education and financial support may improve contraception uptake, particularly among OAT patients.

Limitations to our study include participant selection and reporting bias. Recruitment was dependent on facilities being willing to allow our surveyors to recruit among their clients, thus selecting for sites motivated to understand their patients' contraceptive practices. Although over 20 facilities were approached, only six sites agreed to participate. We did not collect data on their reasons for choosing

or declining to participate. We attempted to include women accessing a wide range of services by recruiting at clinics prescribing OAT, as well as dispensing pharmacies and community service locations. A strength of the study is the distribution of recruitment sites throughout the majority of the five provincial health authorities, which oversee health care delivery based on geographical boundaries. Respondents were self-selected based on their willingness to participate in a survey that asked sensitive questions; however, our high participation rate minimizes self-selection bias. Our findings may be a conservative estimate of the unmet needs of women on OAT; most study participants were recruited from clinics that provide comprehensive primary care.

CONCLUSION

We present the first Canadian data on the unmet need for contraception, prevalence of unintended pregnancy, and contraception practices of women on MET or BUP therapy for opioid use disorder. Despite the many contraceptive options available, most women at risk for unintended pregnancy choose the least effective methods, with no method used at last intercourse being the most common response. Screening for women's health concerns, particularly an unmet need for contraception, should be incorporated into substance use treatment settings, postpartum obstetric services, and primary care clinics that provide opioid agonist therapy. Public health initiatives to improve early contraception education and method accessibility and reduce cost may also improve uptake of contraception. Further research on the socioeconomic barriers to reproductive care and impact of unintended pregnancy will allow us to better understand the unique concerns of this patient population.

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