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Perceptions of pregnancy and contraceptive use: An in-depth study of women in Los Angeles methadone clinics

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Abstract

Introduction: In 2016, 2.1 million people in the United States were estimated to have an opioid use disorder. While the disorder can be safely and effectively treated with prescription methadone, treatment is potentially long-term and may span women's peak childbearing ages. Little is known about women's reproductive health needs while on methadone.

Methods: We interviewed 22 sexually active, non-pregnant women ages 21–39 at two Los Angeles methadone clinics in 2016. The interviews were transcribed and coded by four researchers using thematic and open coding techniques.

Results: Half of women were nulliparous and 17 were in stable, monogamous relationships with men. Women reported a range of feelings and perceptions about pregnancy, but nearly all wanted to delay pregnancy until discontinuing methadone. However, many women indicated limited interest in preventing pregnancy because of the relative stability of their relationships, fear of infertility, and low perceived risk of pregnancy. These factors influenced contraceptive use.

Discussion: Women described mixed feelings about pregnancy and many ultimately felt that an unplanned pregnancy would be acceptable in the context of their relationships and uncertain fertility. These findings provide context for previous quantitative findings that women in

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methadone treatment have higher rates of unintended pregnancy and lower rates of contraceptive use than the general population.

Implications for public health practice: Accurate information about pregnancy in the context of methadone treatment may help women make proactive family planning decisions. Healthcare providers should discuss the guidelines for pregnancy on methadone and offer a range of options to help women achieve their reproductive goals.

Introduction

Opioid Use Disorder

An estimated 2.1 million people in the United States had an opioid use disorder in 2016 (Substance Abuse and Mental Health Services Administration, 2017). Opioid use disorder is defined in the Diagnostic and Statistical Manual of Mental Disorders (5th ed.) as "a problematic pattern of opioid use leading to clinically significant impairment or distress" (American Psychiatric Association, 2013). While more men than women have an opioid use disorder, the gender gap is decreasing (Marsh, Park, Lin, & Bersamira, 2018). The rise of opioid use disorder among women may, at least in part, be attributed to women's unique physiological vulnerability to opioid use disorder (Lynch, Roth, & Carroll, 2002). Moreover, women receive more than half of opioid prescriptions in the United States (56%) (Mazure & Fiellin, 2018) and represent more than half of emergency room visits related to opioid prescription overdose (Tadros, Layman, Davis, Davidov, & Cimino, 2015).

Methadone is one of several opioid agonists that are FDA-approved as a treatment for opioid use disorder (National Institute on Drug Abuse, 2018). When taken as prescribed, methadone safely and effectively helps prevent physiological symptoms of withdrawal (Alderks, 2013; Fareed et al., 2010; Joseph, Stancliff, & Langrod, 2000), facilitates reengagement with families and communities (Alderks, 2013), and reduces criminal activity (Jimenez-Treviño et al., 2011).

Reproductive Health Needs of Women in Treatment

Given the rise in opioid use disorders and treatment among women, there is a critical need to understand and address reproductive health issues in this population. Accurate and comprehensive information is critical for women in methadone treatment, as treatment may last several years and span peak childbearing ages. A growing body of literature has found that women in methadone treatment often do not have access to information or services that support them achieving their reproductive goals (i.e., education/services to support women who wish to prevent pregnancy *and* who wish to have a healthy pregnancy) (Terplan, Lawental, Connah, & Martin, 2016). Women may face other barriers to reproductive health services, including fear of legal consequences (Paltrow & Flavin, 2013; Stone, 2015), social stigma, and inadequately prepared healthcare providers (Sutter, Gopman, & Leeman, 2017). A recent qualitative study (2016) highlighted additional barriers to family planning, such as difficulty scheduling appointments and filling prescriptions (Robinowitz, Muqueeth, Scheibler, Salisbury-Afshar, & Terplan, 2016).

Pregnant women with opioid use disorders have an elevated risk of adverse perinatal outcomes, including preterm delivery, abruptio placenta, fetal growth restriction, intrauterine fetal demise, and neonatal abstinence syndrome compared to women without substance use disorders (Stanhope, Gill, & Rose, 2013). While methadone treatment does not eliminate these risks, it has been shown to improve maternal and neonatal outcomes, particularly when accompanied by appropriate prenatal care (Hudak & Tan, 2012; Winklbaur et al., 2008). The American College of Obstetrics and Gynecology (ACOG) recommends that methadone treatment be maintained during pregnancy (ACOG, 2017). However, women may be reluctant to disclose their substance use or methadone treatment to their healthcare providers and may not be aware of this recommendation.

Women in methadone treatment have lower rates of contraceptive use, higher rates of unintended pregnancy, and more ambivalent attitudes toward pregnancy, compared to the general population (Heil et al., 2011). A study of more than 900 pregnant women with opioid use disorder found that 86% of pregnancies were unintended (Heil et al., 2011), a much higher rate than in the general population (45%) (Finer & Zolna, 2016).

A recent meta-analysis (2015) found that 56% of women of reproductive age with substance use disorders were using contraception, compared to 81% of the general population. The meta-analysis also found that women in methadone treatment were using less effective methods of contraception (Terplan, et al. 2015).

Despite high rates of unintended pregnancy among women in methadone treatment, there has been relatively little research exploring *how* women in methadone treatment perceive and navigate reproductive decisions and pregnancy.

Methods

Using a convenience sample, we interviewed women at two methadone clinics in Los Angeles between September and December 2016. Women were recruited when they came for their regular methadone dose. Eligibility criteria included: actively taking prescription methadone, between the ages of 18 and 45, English speaking, not pregnant, and no history of sterilization/hysterectomy. Women who had never had sex with a male partner were also ineligible. Interviews focused on women's experiences seeking reproductive healthcare, feelings toward pregnancy and contraception, and reproductive decision making.

Three female members of the research team conducted interviews using a semi-structured interview guide, which was developed and reviewed by the research team and methadone clinic staff, and approved by the Human Research Protection Program at the University of California, Los Angeles. The approximately 60-minute interviews were conducted in a private space at the clinics. Interviewers provided written material explaining the study and obtained affirmative verbal consent. Participants were given a $30 gift card to compensate them for their time. We concluded data collection at saturation.

Analysis

Interviews were recorded, transcribed, and coded by the research team in Dedoose version 7.0.23 using thematic and open coding techniques. We developed the codebook as we identified themes. Coding inconsistencies were reconciled during regular meetings. We developed memos to synthesize codes and describe trends in the data. Once the transcripts were coded, a fourth team member read each transcript in its entirety and grouped coded segments according to sub-themes.

Findings

We conducted 22 interviews at two Los Angeles methadone clinics with women between the ages of 21 and 39 years. The mean age was 32 years. Eight women identified as Hispanic/Latina or Puerto Rican, and nine identified as white. Two-thirds of women had completed at least some college. Half were nulliparous. All had low socio-economic status, as indicated by enrollment in Medicaid. Additional characteristics are in Table 1.

Women discussed their perceptions and experiences of pregnancy, including myriad reasons why they did not want to become pregnant while on methadone. However, many women identified resources in their lives, including stable partnerships, that would buffer them from the challenges of an unintended pregnancy.

Stability paradox

Instability—Women's social and economic circumstances influenced their attitudes and preferences toward pregnancy. Women assessed their circumstances holistically. Not using opioids and weaning off methadone treatment were part of their larger visions of stability. They also aspired to have stable housing, improved mental health, and employment before having (additional) children. A 39-year-old woman with no children said,

> "I absolutely do not want to get pregnant right now. No desire for a child. My life is not together at all, it's completely backwards and I would never bring a child into the world in the condition that I am. I'm not mentally stable, none of that."

A 26-year-old with two children described her recent circumstances and went on to say that she hoped to have another child, but in a year or two: *"Less than a year ago we were homeless … I got pregnant and we were sharing needles, things like that… not anymore … staying clean and healthy is really important to us."* These two women demonstrated a resolve to avoid pregnancy until their circumstances were different. However, few other women in the study expressed this level of certainty.

In general, women felt overwhelmed with needs that took precedence over thinking about, or planning for, pregnancy. A woman with no children stated, *"When you're dealing with so many other things in life, you know, [pregnancy is] not at the forefront… you're trying to find a home and that sort of thing."* A woman with one child explained her priorities:

> "The only thing that's real important to me right now is just making sure that there's food and shelter and my daughter is taken care of. The other stuff [having sex and having a child] will hopefully come when things get back in order."

Stability—In contrast to the instability in women's lives, most, at the time of the interview, indicated they were in stable, monogamous relationships (Table 1). Because of this, many women had mixed feelings about what pregnancy would mean in their lives. While most expressed a desire to delay pregnancy, few were actively engaged in planning their reproductive futures. Women in stable relationships felt that the challenges of an unplanned pregnancy would be buffered by their relationships. A 27-year-old with no children and who did not want to become pregnant said, *"if one day me and my boyfriend just were to mess up and it were to happen, then I would be okay with it. But I would prefer that not to happen."* This rationale was common among respondents.

Along with relationship stability, women discussed love as a reason why an unplanned pregnancy while on methadone would ultimately be acceptable. A 31-year-old woman with one child said, *"I'm in love with my boyfriend right now and [if I became pregnant] I would have the baby even though I don't think we are in a position to have one. We would make it work."* Another woman, who had experienced an unplanned pregnancy, described her experience, *"I was not trying to get pregnant… it slipped by me this one time though, but it was cool because [the relationship] is forever… it was the right person."*

Fear of infertility

While many women wanted to delay pregnancy, they were also concerned about how substance use and methadone treatment affected their fertility. Older women were also concerned about the limited window they had for pregnancy.

A 32-year-old with no children was worried she would not be able to get pregnant, even though she was not currently using substances. She stated, *"it kind of worries me why I don't get pregnant… I'm nine months [clean]. I didn't get pregnant. My mom and my counselor said, 'It's because you have been doing drugs all these years …'"* Another woman with no children shared a similar concern: *"They say that heroin makes you not fertile. I don't know if it's just a certain amount of time or forever. That kind of worries me, that maybe I might not ever get [my fertility] back."*

Fears of infertility were pervasive among women in their 30s who wanted (more) children, but few reported receiving medical advice around their perceived fertility. They were ambivalent about preventing pregnancy because they were uncertain about their capacity to become pregnant and wanted to have a child while they were still fertile. At the same time, they also wanted to be in different circumstances before becoming pregnant. A 39-year-old with no children shared: *"I worry that by the time I am on my feet and not depressed and in a different environment, and I have people that I can trust again, it will be too late [to get pregnant]."*

Perceived unacceptability of pregnancy while on methadone

All respondents expressed a degree of discomfort with pregnancy while on methadone, ranging from preferring to not become pregnant to being resolutely against it. One woman stated,

> "I would just not want to be on methadone if I got pregnant again or using, you know. Right now, I'm not using, but you never know… I keep going down on methadone little by little, [but] I would rather not be on methadone if I got pregnant again."

Several women felt that pregnancy while on methadone would negatively affect the health of the child. One feared that methadone could kill her child, whether she stayed on methadone or weaned off during pregnancy, stating,

> "I don't want a sick baby. I don't want the baby to die because I'm on too high of a dose [of methadone] … I know once you get pregnant they won't let you taper off methadone because it could kill your child. You can kill your child either way."

A few women knew that pregnancy on methadone could be safe, but they were still uncomfortable with it. One woman had done research on the subject and found,

> "All the studies say it's okay, but I still don't feel comfortable with that decision. I know that if I feel like I need the methadone, I don't want my baby to feel like it needs the methadone. I don't want them to be born with any addictive things because of me."

Mixed feelings toward pregnancy

While women felt that pregnancy was unacceptable while on methadone, many also expressed fatalistic attitudes about their ability to prevent pregnancy, using phrases such as "everything happens for a reason," "God knows," and "maybe I'm meant to have a kid."

Women navigated their reproductive choices at the intersection of many life circumstances. This was highlighted in an interview with a 26-year-old with two children. Within a one hour interview she expressed multiple conflicting feelings, including, resolve to avoid pregnancy while on methadone: *"I definitely don't think I want a dose of methadone daily or a heroin dependency, [neither] is a good situation for me to create a child"*; a desire to have another child at a future time when she envisioned her life would be more stable: *"I hope to have one more child, but I hope that I'll be completely stable before I even try"*; and, fear of not being able to become pregnant when she was ready: *"I really hope once I try, I can [get pregnant]. I'm so afraid that I've ruined my body by taking so many drugs that I won't be able to get pregnant. But I don't know what the likelihood is."* Despite wanting to delay pregnancy, she was not using contraception because, *"[methadone] makes it pretty hard for me to get pregnant, since I don't have regular periods. I'm kind of testing fate, I guess, but I feel like I'm in the situation I'm in right now, my body just won't allow it."* Her desire to delay pregnancy and fear of infertility were complicated by her stable relationship, and she ultimately stated, *"I love him, so if it did happen I wouldn't be totally and completely shocked."*

Contraceptive decision making

Low pregnancy risk perception—Many women believed that they could not become pregnant while on methadone for a variety of reasons, including: not having a regular menstrual period, experiencing low sex drive leading to infrequent sex, and not becoming

pregnant in the past, despite having unprotected sex. A woman shared that since she started methadone, she can *"have sex without protection and not really get pregnant and maybe it's the methadon*e … *If I had sex unprotected, I was pregnant before."* Another woman experienced only getting pregnant when she was not using substances or methadone. She had two children and explained how methadone protected her from becoming pregnant again. She stated, *"both times I got pregnant, I was completely clean when it happened… in my mind, [methadone is] kind* of *my own personal raincoat."*

A 36-year-old described her decision to stop getting Depo-Provera (injectable contraceptive) while she was using heroin: *"I started using heroin and I stopped having sex, so I didn't see the reason to keep going to get [Depo-Provera]. I was too busy doing other things. I just didn't have sex anymore."* Low sex drive was common among respondents. Another woman shared, *"if we even have sex, maybe it's like once a month. I'm not really worried about getting pregnant because we're never really doing anything. Birth control is not really a factor."*

Motivation—Along with describing how substance use and methadone treatment affected their sex drive and frequency of intercourse, women also discussed how substance use interfered with their motivation and ability to make proactive decisions around contraception.

Women shared that they did not think about contraception while they were using opioids, even if they did not want to have a child and knew that they were at risk for an unintended pregnancy. A 34-year-old with no children stated,

> "I wouldn't even consider having a child, but if you're really high you're going to be less likely to be worried about it at the time [of sex] and then later come back and go 'oh wow, that was not a good plan.'… I definitely have been in that situation where I was like 'wow I really shouldn't have been so lax on that issue.'"

Several women stated that they "didn't care," "didn't think about," or "weren't worried" about using contraception while they were using opioids. In some cases, this contrasted with a time before they developed opioid use disorder and were proactively using contraception to avoid pregnancy. One woman shared: *"I've always been on [birth control] - until now. I got on drugs and was not really taking care of myself like I would before."*

Barriers to contraceptive use: attitudes and side effects—Women also made decisions about contraception based on factors outside of substance use and methadone treatment. For contraceptive methods such as pills, intrauterine devices (IUDs), and injections, women's decisions were primarily based on their past experiences with the method and perceptions of side effects. Condom use was limited to sexual partners outside of the primary relationship or when fidelity was in question. For example, one respondent described the circumstances where she would use a condom:

> "I do use a condom if we're split up for a while… or if I have had another sex partner. In the ten years we've been together, I have had another sex partner or two

and I have used protection with them. But when I'm with [my primary partner], I don't."

Table 2 lists additional non-substance use specific reasons why women did not use contraception. These included negative experiences with contraceptives (e.g., contraceptive failure), fear of future infertility, undesirable characteristics of specific methods, and relationship characteristics.

Discussion

The majority of women in this study expressed a desire to delay pregnancy, but few were actively preventing pregnancy through consistent contraceptive use. While these patterns of inconsistent or non-use of contraception can be partially attributed to low perceived risk of becoming pregnant, it appears to also reflect the general uncertainty of women's lives.

Women in this study who wanted to become pregnant anticipated a future where they would not be on methadone and could have a pregnancy in more stable circumstances. Although studies have shown that opioid use disorder is a chronic condition that may require long-term treatment (Hser, Hoffman, Grella, & Anglin, 2001), no one discussed the possibility of long-term or indefinite methadone treatment.

At the same time, it is recommended that methadone treatment be maintained during pregnancy (Winklbaur et al., 2008), as it is associated with better maternal and child outcomes than opioid withdrawal (Fullerton et al., 2014; Jones, O'Grady, Malfi, & Tuten, 2008). In contrast, the majority of women we interviewed were unaware of the recommendations around methadone and pregnancy and feared that negative outcomes (e.g., death of the fetus/newborn) were inevitable. The few women who did know the medical recommendations were skeptical of them, suggesting that they had internalized messages that stigmatize pregnancy while on methadone.

Implications for Public Health Practice

Healthcare providers, both inside and outside of methadone clinics, can support women by discussing the risks associated with pregnancy while on methadone compared to the risks of weaning off methadone or relapse while pregnant. Non-judgmental communication by healthcare providers may alleviate some of the stigma associated with methadone treatment, which contributes to worse health outcomes, healthcare avoidance (van Boekel, Brouwers, van Weeghel, & Garretsen, 2013; Stone, 2015), and lack of pregnancy planning. Unfortunately, healthcare providers may not be equipped with accurate information to appropriately advise women in methadone treatment (Sutter et al., 2017).

Compared to women with opioid use disorder who are not in treatment, women in methadone treatment may have a greater capacity to engage in reproductive decision making. It is an opportune time to offer comprehensive contraceptive counseling. Contraception, including hormonal options, is not contraindicated for women on methadone (Curtis, et al., 2016); women can safely choose from a variety of methods. Proactive

planning is critical for women to realize their reproductive goals, particularly because most women in this study wanted to become pregnant eventually.

Along with contraceptive counseling, increased access to pre-conception and prenatal care can ensure that women who want to become pregnant can do so safely. Offering these services can also help normalize planning for pregnancy while on methadone and reduce unplanned pregnancy in this population.

Women in this study who worried about their ability to become pregnant in the future struggled to make proactive decisions about contraception. Women could benefit from accurate information about their fertility and counseling regarding the ongoing likelihood of pregnancy in the context of past substance use and ongoing methadone treatment. Women who develop amenorrhea, hypogonadism, or other disorders as a result of opioid use may experience a decrease in fertility (Daniell, 2002; Vuong, Van Uum, O'Dell, Lutfy, & Friedman, 2010), however, not necessarily infertility. Women in methadone treatment are still at high risk for unintended pregnancies (Heil et al., 2011).

As the opioid epidemic continues to grow, healthcare providers are tasked with meeting the needs of an increasing population of women of reproductive age on methadone treatment. This requires further research on how women on methadone perceive and act on their reproductive desires. Women in methadone treatment need support to make proactive reproductive decisions and achieve their reproductive goals.

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Reference List

Alderks CE (2013). Trends in the Use of Methadone and Buprenorphine at Substance Abuse Treatment Facilities: 2003 to 2011 In The CBHSQ Report. Rockville (MD): Substance Abuse and Mental Health Services Administration (US) Retrieved from http://www.ncbi.nlm.nih.gov/books/NBK384659/

American College of Obstetricians and Gynecologists (2017). Opioid use and opioid use disorder in pregnancy. Committee Opinion No. 711. Obstet Gynecol, 130:e81–94. Retrieved from https://www.acog.org/Clinical-Guidance-and-Publications/Committee-Opinions/Committee-on-Obstetric-Practice/Opioid-Use-and-Opioid-Use-Disorder-in-Pregnancy [PubMed: 28742676]

American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders (5th ed.). Arlington, VA: American Psychiatric Publishing

Curtis KM, Tepper NK, Jatlaoui TC, et al. (2016). U.S. Medical Eligibility Criteria for Contraceptive Use, 2016. MMWR Recomm Rep 2016;65(No. RR-3):1–104. DOI: 10.15585/mmwr.rr6503a1

Daniell HW (2002). Narcotic-induced hypogonadism during therapy for heroin addiction. Journal of Addictive Diseases, 21(4), 47–53. 10.1300/J069v21n04_05 [PubMed: 12296501]

Fareed A, Vayalapalli S, Stout S, Casarella J, Drexler K, & Bailey P, S. P (2010). Effect of Methadone Maintenance Treatment on Heroin Craving, a Literature Review. Journal of Addictive Diseases, 30(1), 27–38. 10.1080/10550887.2010.531672

Finer LB, & Zolna MR (2016). Declines in Unintended Pregnancy in the United States, 2008–2011. The New England Journal of Medicine, 374(9), 843–852. 10.1056/NEJMsa1506575 [PubMed: 26962904]

Fullerton CA, Kim M, Thomas CP, Lyman DR, Montejano LB, Dougherty RH, … Delphin-Rittmon ME (2014). Medication-Assisted Treatment With Methadone: Assessing the Evidence. Psychiatric Services, 65(2), 146–157. 10.1176/appi.ps.201300235 [PubMed: 24248468]

Heil SH, Jones HE, Arria A, Kaltenbach K, Coyle M, Fischer G, … Martin PR (2011).Unintended pregnancy in opioid-abusing women. Journal of Substance Abuse Treatment, 40(2), 199–202. 10.1016/jjsat.2010.08.011 [PubMed: 21036512]

Hser YI, Hoffman V, Grella CE, & Anglin MD (2001). A 33-year follow-up of narcotics addicts. Archives of General Psychiatry, 58(5), 503–508. [PubMed: 11343531]

Hudak ML, & Tan RC (2012). Neonatal Drug Withdrawal. Pediatrics, 129(2), e540–e560. 10.1542/peds.2011-3212 [PubMed: 22291123]

Jimenez-Treviño L, Saiz PA, García-Portilla MP, Díaz-Mesa EM, Sánchez-Lasheras F, Burón P, … Bobes J (2011). A 25-year follow-up of patients admitted to methadone treatment for the first time: Mortality and gender differences. Addictive Behaviors, 36(12), 1184–1190. 10.1016/j.addbeh.2011.07.019 [PubMed: 21835551]

Jones HE, O'Grady KE, Malfi D, & Tuten M (2008). Methadone Maintenance vs. Methadone Taper During Pregnancy: Maternal and Neonatal Outcomes. The American Journal on Addictions, 17(5), 372–386. 10.1080/10550490802266276 [PubMed: 18770079]

Joseph H, Stancliff S, & Langrod J (2000). Methadone maintenance treatment (MMT): a review of historical and clinical issues. The M ount Sinai Journal of Medicine, New York, 67(5–6), 347–364.

Lynch WJ, Roth ME, & Carroll ME (2002). Biological basis of sex differences in drug abuse: preclinical and clinical studies. Psychopharmacology, 164(2), 121–137. 10.1007/s00213-002-1183-2 [PubMed: 12404074]

Marsh JC, Park K, Lin Y-A, & Bersamira C (2018). Gender differences in trends for heroin use and nonmedical prescription opioid use, 2007–2014. Journal of Substance Abuse Treatment, 87, 79–85. 10.1016/j.jsat.2018.01.001 [PubMed: 29433788]

Mazure CM, & Fiellin DA (2018). Women and opioids: something different is happening here. The Lancet, 392(10141), 9–11. 10.1016/S0140-6736(18)31203-0

National Institute on Drug Abuse. (2018). Principles of Drug Addiction Treatment: A Research-Based Guide (Third Edition). Retrieved from https://d14rmgtrwzf5a.cloudfront.net/sites/default/files/675-principles-of-drug-addiction-treatment-a-research-based-guide-third-edition.pdf

Paltrow LM, & Flavin J (2013). Arrests of and forced interventions on pregnant women in the United States, 1973–2005: implications for women's legal status and public health. Journal of Health Politics, Policy and Law, 38(2), 299–343. 10.1215/03616878-1966324

Robinowitz N, Muqueeth S, Scheibler J, Salisbury-Afshar E, & Terplan M (2016). Family Planning in Substance Use Disorder Treatment Centers: Opportunities and Challenges. Substance Use & Misuse, 51(11), 1477–1483. 10.1080/10826084.2016.1188944 [PubMed: 27440391]

Stanhope TJ, Gill LA, & Rose C (2013). Chronic Opioid Use During Pregnancy: Maternal and Fetal Implications. Clinics in Perinatology, 40(3), 337–350. 10.1016/j.clp.2013.05.015 [PubMed: 23972743]

Stone R (2015). Pregnant women and substance use: fear, stigma, and barriers to care. Health & Justice, 3(1), 2 10.1186/s40352-015-0015-5

Substance Abuse and Mental Health Services Administration. (2017). Key substance use and mental health indicators in the United States: Results from the 2016 National Survey on Drug Use and Health. HHS Publication No. SMA 17–5044, NSDUH Series H-52. Retrieved from https://www.samhsa.gov/data/

Sutter MB, Gopman S, & Leeman L (2017). Patient-centered Care to Address Barriers for Pregnant Women with Opioid Dependence. Obstetrics and Gynecology Clinics of North America, 44(1), 95–107. 10.1016/j.ogc.2016.11.004 [PubMed: 28160896]

Tadros A, Layman SM, Davis SM, Davidov DM, & Cimino S (2015). Emergency Visits for Prescription Opioid Poisonings. The Journal of Emergency Medicine, 49(6), 871–877. 10.1016/j.jemermed.2015.06.035 [PubMed: 26409674]

Terplan M, Hand DJ, Hutchinson M, Salisbury-Afshar E, & Heil SH (2015). Contraceptive use and method choice among women with opioid and other substance use disorders: A systematic review. Preventive Medicine, 80, 23–31. 10.1016/j.ypmed.2015.04.008 [PubMed: 25900803]

Terplan M, Lawental M, Connah MB, & Martin CE (2016). Reproductive Health Needs Among Substance Use Disorder Treatment Clients. Journal of Addiction Medicine, 10(1), 20 10.1097/ADM.0000000000000175 [PubMed: 26690290]

van Boekel LC, Brouwers EPM, van Weeghel J, & Garretsen HFL (2013). Stigma among health professionals towards patients with substance use disorders and its consequences for healthcare delivery: Systematic review. Drug & Alcohol Dependence, 131(1), 23–35. 10.1016/j.drugalcdep.2013.02.018 [PubMed: 23490450]

Vuong C, Van Uum SHM, O'Dell LE, Lutfy K, & Friedman TC (2010). The effects of opioids and opioid analogs on animal and human endocrine systems. Endocrine Reviews, 31(1), 98–132. 10.1210/er.2009-0009 [PubMed: 19903933]

Winklbaur B, Kopf N, Ebner N, Jung E, Thau K, & Fischer G (2008). Treating pregnant women dependent on opioids is not the same as treating pregnancy and opioid dependence: a knowledge synthesis for better treatment for women and neonates. Addiction, 103(9), 1429–1440. 10.1111/j.1360-0443.2008.02283.x [PubMed: 18783498]

Table 1.

Aggregate demographic characteristics of study respondents at two Los Angeles methadone clinics (2016; N=22)[1]

	Mean (range)
Age	32 (21–39)
Number of children	1 (0–7)
	N
Relationship status	
None/unstable	5
Stable/married	17
Education[2]	
Some High School	4
High School graduate	2
Some college	9
College graduate	3
Race/ethnicity[3]	
Black	1
Hispanic/Latina	8
White	9
More than one race	3

[1]Although collected, number of sexual partners is not included in table 1 because of minimal variability. Twenty respondents reported one sexual partner and two respondents reported two sexual partners.

[2]Four respondents did not indicate their education.

[3]One respondent did not indicate her race/ethnicity.

Table 2.

Reasons for contraceptive non-use outside of substance use/methadone treatment among women at two methadone clinics in Los Angeles (2016)

Category	Quotations
Negative experiences and side effects	*"I fully got pregnant on the pills. I don't know what it is with me and birth control. Maybe I'm meant to have a kid, but I just keep fighting the forces. I don't know, but I got pregnant."*
	"I said, I'm not going to take those pills anymore because I didn't like [looking] bloated."
	"[The IUD] was cutting my ovaries, so I had to get it removed. That's how I got pregnant with my second son. Ever since that happened I haven't been on birth control. I never mess with it."
	"I got pregnant the first time on birth control."
Fear of infertility	*"I've never been on the pill. I've never wanted to take anything that I felt like it might affect my reproductive system in a negative way or my body in general, which is weird that I've taken drugs before."*
	"You read of those cases where it takes women a year to two years after they stop using their birth control to get pregnant. I only have, what, a good six years left maybe that I'm in prime pregnancy real estate?"
Method characteristics	*"I didn't like the pills because I couldn't remember to take them, so I stopped and started taking the Depo."*
	"I don't like how it feels with a condom, I guess that's why, but that is very irresponsible, even if it's your partner. I do take care of myself, but not with condoms."
Partnership characteristics (condom use only)	*"I don't use a condom with him because he is my boyfriend and we have loyalty and trust."*
	"If I'm in love with [my partner], eventually I'm going to sleep with them with no protection."
	"Why am I going to use [a condom] with a guy that I love? That was embarrassing for me… why am I going to wear this with the love of my life?"