

Contraceptive uptake in postpartum people with opioid use disorder and opioid use with co-occurring substance use

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INTRODUCTION

- Postpartum contraception allows people to space their pregnancies but uptake among people with OUD is not well characterized.
- Using regional electronic health record data, we characterize uptake of contraceptive methods 90 days postpartum among people with OUD alone and with co-occurring substance use disorders.

METHODS

- Cross sectional analysis of St. Louis University-SSM Healthcare System's Virtual Data Warehouse from 2016 to 2021
- 61,221 patients with 73,811 pregnancy episodes
- Primary exposure: at least one diagnosis of OUD from the year prior to start of pregnancy through delivery date.
- Secondary exposure: OUD + co-occurring use of alcohol, cannabis, stimulant, or sedatives
- Outcome: Initiation of contraception in the 90 days after delivery
 - Effective methods: oral contraception, medroxyprogesterone injection, vaginal ring, and contraceptive patch
 - Highly effective methods: long-acting reversible contraception (LARC; copper and progesterone intrauterine device and contraceptive implant) and female sterilization
- Analysis: Generalized Estimating Equations (GEE) type robust Poisson modeling assessed association of OUD and OUD plus co-occurring SUD and receipt of any contraception (among the entire sample) and contraception by type in the 90 days after delivery

RESULTS

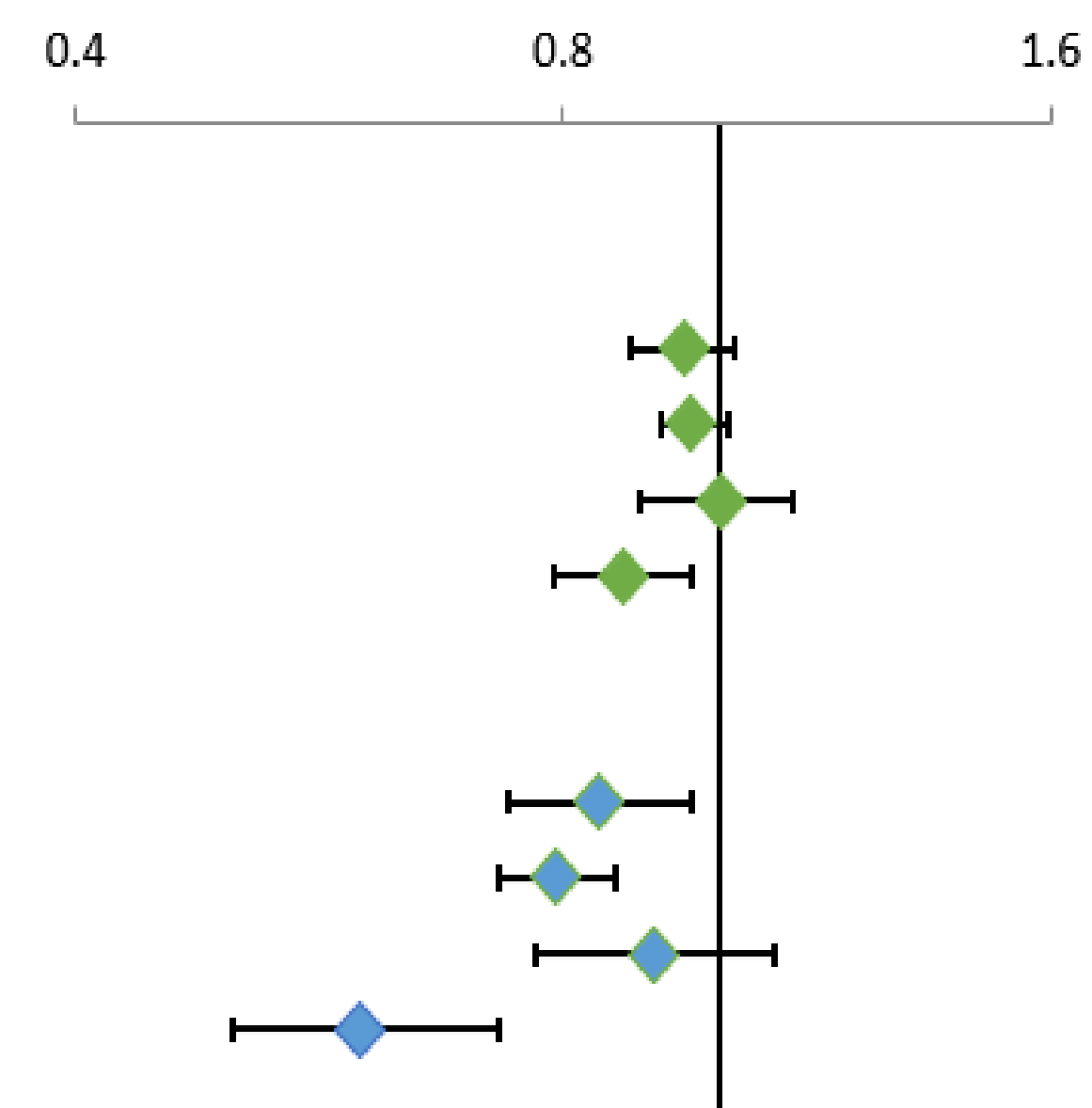
Table 1: Demographic characteristics	Unique patients (n=61,221)	No OUD (n=59,736)	OUD (n=1,485)	p-value
Race				<.0001
White	40422 (66.0)	39343 (65.9)	1079 (72.7)	
Black	16137 (26.4)	15765 (26.4)	372 (25.1)	
Other	4662 (7.6)	4628 (7.8)	34 (2.3)	
Hispanic ethnicity	3699 (6.0)	3673 (6.2)	26 (1.8)	<.0001
Low Neighborhood SES	32140 (52.5)	28407 (47.6)	674 (45.4)	.099
Pregnancy episodes	Total episodes (n=73,811)	No OUD (n=72,117)	OUD (n=1,694)	
Age (range=12 to 60)				<.0001
Age 12-19	4870 (6.6)	4846 (6.7)	24 (1.4)	
Age 20-34	59800 (81.0)	58440 (81.0)	1360 (80.3)	
Age ≥35	9141 (12.4)	8831 (12.2)	310 (18.3)	
OUD	1694 (2.3)			
Any other SUD ^a	6968 (9.4)	5943 (8.2)	1025 (60.5)	<.0001
OUD polysubstance ^b				---
None	66174 (89.6)	---	---	
Other SUD, no OUD	5943 (8.1)	---	---	
OUD only	669 (0.9)	---	---	
OUD + other	1025 (1.4)	---	---	

^a Any other SUD=alcohol, cannabis, stimulant, or sedative use disorder; ^b OUD+other = OUD+alcohol, cannabis, stimulant, or sedative (OUD+a single or multiple SUD); Other+no OUD (may be multiple)

People with opioid use disorder are less likely to initiate a highly effective postpartum contraceptive method than the general population, especially if they have co-occurring substance use.

Relationship of OUD +/- co-occurring SUD and starting any contraception and by method effectiveness within 90 days, adjusted GEE-type robust Poisson models, 1/1/16 to 12/31/2021

Starting any contraception among 61,221 women with 73,811 pregnancy		aRR	95% CI
Model 1	OUD v no OUD	0.95	0.88 1.02
Model 2	Non-OUD SUD vs no SUD	0.96	0.92 1.01
	OUD only vs no SUD	1.00	0.89 1.11
	OUD + co-occurring SUD vs no SUD	0.87	0.79 0.96
Highly effective vs effective contraception among 22,041 women with 23,982 pregnancy episodes that started contraception			
Model 3	OUD vs no OUD	0.84	0.74 0.96
Model 4	Non-OUD SUD vs no SUD	0.79	0.73 0.86
	OUD only vs no SUD	0.91	0.77 1.08
	OUD + co-occurring SUD vs no SUD	0.60	0.50 0.73



OUD: opioid use disorder; SUD: substance use disorder; GEE: Generalized Estimating Equations; Non-OUD SUD: alcohol, cannabis, stimulant, or sedative abuse or dependence; Highly effective methods include long-acting reversible contraception (LARC; copper and progesterone intrauterine device and contraceptive implant) and female sterilization; Effective methods include oral contraception, medroxyprogesterone injection, vaginal ring, and contraceptive patch.

Table 2: Postpartum Contraception Uptake

Outcome	Unique patients (n=61,221)	Non-OUD patients (n=59,736)	OUD patients (n=1,485)	P-value
Started contraception 0-90 days after delivery	23982 (32.5)	23438 (32.5)	554 (32.1)	.742
Type of contraception				.150
None	49829 (67.5)	48679 (67.5)	1150 (67.9)	
Effective ^a	15498 (21.0)	15125 (21.0)	373 (22.0)	
Highly effective ^b	8484 (11.5)	8313 (11.5)	171 (10.1)	
Started contraception immediately (0-4 days after delivery)	3728 (5.1)	3618 (5.0)	110 (6.5)	.007

^a Effective: user, dependent hormonal methods oral contraception, injection, vaginal ring, patch; ^b Highly effective: sterilization, long-acting reversible contraception including intrauterine device and implant

DISCUSSION

- Postpartum people with OUD had lower uptake of LARC methods and sterilization than people without OUD.
- People with OUD plus co-occurring SUD were less likely to initiate any method and even less likely to initiate highly effective methods compared to people with OUD alone.
- A gap exists in our understanding of real-world substance use patterns and treatment needs.
- Helping people with OUD plus co-occurring SUD space their pregnancies to improve maternal and child health outcomes is an important public health issue.
- More research is needed to understand barriers and preferences of people who use multiple substances.

LIMITATIONS

- Regional EHR data drawn from a Catholic healthcare system may limit generalizability
- Contraceptive methods may not have been captured: (1) occurred in a different healthcare system or (2) use of non-prescription methods

REFERENCE: ¹ Briggs, R., Forson, N., & Glasier, A. (2016). Postpartum contraception: a missed opportunity to prevent unintended pregnancy and short inter-pregnancy intervals. J Fam Plann Reprod Health Care, 42(2), 93-98.

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