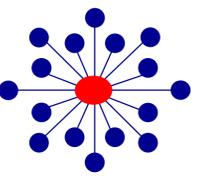


Sex Differences Among Patients with Opioid Use Disorder Entering a Comparative Effectiveness Medication Trial



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ABSTRACT

We investigated baseline sex differences in men and women (N=570) with opioid use disorder (OUD) receiving inpatient services and entering a randomized controlled trial comparing extended release naltrexone to buprenorphine conducted within NIDA's National Drug Abuse Treatment Clinical Trials Network. Women were significantly younger, more likely to identify as bisexual, live with a sexual partner, be financially dependent on someone else, and less likely to be employed. Women reported significantly greater psychiatric comorbidity, risk behaviors, and had shorter duration, but similar age of onset, of opioid use. Findings underscore economic, psychiatric, and infection vulnerability among women with OUD which may complicate treatment initiation, retention, and recovery. Interventions targeting these disparities should be explored.

BACKGROUND

- Women experienced a 400% increase in prescription opioid overdoses between 1999-2010, compared to 265% increase among men.¹
- Women with OUD report more issues with drug, medical, psychological, family/social, and employment problems, while men report more problems with legal and alcohol-related issues.²
- Treatment providers may lack awareness of such differences, or programs may lack infrastructure to support gender-specific treatment.
- **This analysis investigates sex differences on baseline characteristics in a sample of individuals entering a national multi-site randomized controlled medication trial for OUD from 2014-2016.**
- Results offer an opportunity to investigate gender differences among treatment seeking individuals with OUD using recently collected data from geographically diverse clinical sites.

METHODS

- **Participants:** men (n=401) and women (n=169) with OUD recruited from inpatient detox units (N=8) across the US into a randomized controlled 24-week open-label comparative effectiveness trial of buprenorphine vs extended release naltrexone.³
- **Timepoint:** baseline assessment
- **Variables:** demographics, substance use, treatment preference and history, current mental health and psychiatric history, general physical health, and drug and sex risk behaviors.
- **Statistical Methods:** chi-square tests were used to test differences by sex (female vs. male) for categorical variables and t-tests for continuous variables; Fisher's exact test was used if expected cell count was < 5 in > 20% of cells (race, sexual orientation).

RESULTS

Demographic Variables*	Females M(SD) / %	Males M(SD) / %
Age (years)	32.4 (8.8)	34.5 (9.9)
Race		
White	79.3	71.6
Black	4.7	12.2
Multi-race/Other	16.0	14.7
Sexual Orientation		
Straight/Heterosexual	84.8	98.0
Gay/Homosexual	2.4	0.8
Bisexual	12.8	1.3
Living Arrangement		
With Sex Partner	34.3	28.9
Children Alone	9.5	0.7
With Family/Friends	40.8	45.6
Alone	10.1	14.5
Other	5.3	10.2
Employed	20.1	29.7
Majority Support Someone Else	60.9	44.3
Live w/ Someone w/ Drug Problem	27.8	17.2

Drug/Sex Risk Variables*	Females M(SD)/%	Males M(SD) / %
Sex for Drugs	26.2	2.8
Shared Needles/Works		
No or Injected but did not share	74.9	84.8
Inject and shared	25.1	15.2

*Variables significantly different by sex (p<.05)

Substance Use & Treatment Variables*	Females M(SD) / %	Males M(SD) / %
Duration Opioid Use (yrs)	11.2 (8.3)	13.1 (9.2)
Primary Opioid (last 7 days)		
Heroin	74.4	84.5
Others	25.6	15.5
# Lifetime Drug TXs	4.1 (5.0)	5.7 (9.8)

Mental, Physical Health Variables*	Females M(SD) / %	Males M(SD) / %
# Days Mental Health "Not Good" (30d)	13.8 (11.4)	11.0 (10.8)
Any Psychiatric Disorder	79.3	58.1
Lifetime Physical Abuse	64.3	30.7
Lifetime Sexual Abuse	53.3	15.8

*Variables significantly different by sex (p<.05)

Variables NOT significantly different by sex:
DEMOGRAPHICS: Hispanic Ethnicity; Education; Marital Status; Health Insurance; Homeless at Screening; On Probation/Parole; Family/Friends who use Drugs
SUBSTANCE USE: Smoking; Alcohol; Cannabis; Cocaine; Stimulant; Benzodiazepine; Opioid Age of Onset; Opioid Cost/Day; Days of Heroin Use (30d); Opioid Withdrawal Discomfort; Any past treatment successful; Received buprenorphine, methadone and naltrexone in the past; Buprenorphine/naltrexone preference
PHYSICAL HEALTH: Chronic Health Problems; Chronic Pain, # Days Physical Health "Not Good" (30d)

DISCUSSION

- Women were younger and demonstrated greater economic vulnerability, psychiatric comorbidity, infection risk, and prevalence of histories of abuse, compared to the men.
- Findings suggest women's substance use may be more integrated with a sexual partner's use, which may complicate treatment initiation, retention, and recovery.
- Women were also more likely to identify as bisexual – an identity associated with greater risk behaviors and substance use.⁴
- Multiple measures of drug use severity were similar for men and women, including age of onset, use of other drugs and alcohol and amount spent on opioids per day.
- Although fewer treatment episodes for women may be a factor of younger age, barriers to women's access to OUD treatment should be explored.

CONCLUSION

- **Findings replicate prior research underscoring economic vulnerability, psychiatric comorbidity, high risk for infection and other complications of opioid use among women with OUDs.**
- **Gender-specific interventions targeting these areas of disparity for women with OUD should be considered, including couples-based risk reduction interventions and interventions that address the unique needs of sexual minority women.**
- **Increased (or renewed) emphasis on risk reduction interventions in addiction specialty programs and throughout the healthcare system should be considered.**

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