Prevalence and Correlates of Intimate Partner Violence among HIV-negative, Heterosexual, Female Methamphetamine Users in San Diego

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Study Objectives

Objective 1: To determine the prevalence of intimate partner violence and violence perpetrated by other types of sex partners (e.g., casual, sex client).

Objective 2: To identify factors independently associated with intimate partner violence.

Burden of Intimate Partner Violence

- In the U.S., 35.6% of women have experienced lifetime intimate partner violence (IPV)
  - Nearly 1 in 10 women (9.4%) has been raped by an intimate partner
  - About 1 in 4 women (24.3%) have experienced severe physical IPV

- High rates of lifetime IPV among U.S. African American women (43.7%), American Indian/Alaskan Native women (up to 46%), and multiracial non-Hispanic women (53.8%)

- IPV often results in adverse mental and physical health consequences including HIV/STIs

CDC, 2011

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Burden of Methamphetamine Use in Women

- Worldwide, methamphetamine (meth) most widely used subgroup of amphetamine-type stimulants[2]

- In U.S., 2005 prevalence of lifetime meth use: 8.6%[3]
  - Proportion of female meth users is nearly equal to men[4]

- In San Diego, CA, meth continues to be primary drug of abuse[5]
  - In 2009, meth use accounted for ~30% hospital admissions
  - Of 4,170 people receiving meth use treatment, 55% were female

[2]Colfax et al, Lancet 2010;[3]Durell et al, Subst Abuse Treat Prev Pol 2008;[4]Cohen et al, J Psychoactive Drugs 2007;[5]Pollini R, CEWG 2010

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Adverse Health Outcomes of Meth Use in Women

- Female meth users have distinct risk profile[6,7]
  - Younger, lower educational levels, married
  - Initiate to lose weight or cope with depression
  - Frequent meth use, smoke vs. snort/inject

- Mental health (e.g., depression, suicidality, mood disorders)[8]

- Physical health[8-10]
  - Increased HIV risk
  - Reduced condom use self-efficacy, outcome expectancies

[6]Evans et al, J Urban Health 2003;[7]Senjo, J Drug Educ 2005;[8]Semple et al, Women Health 2004;[9]Semple et al, AIDS Behav 2010;[10]Semple et al, Addict Behav 2004

IPV and Meth Use in Women

SUBSTANCE ABUSE: "CAUSING" & "COPING WITH" DOMESTIC VIOLENCE

- Meth use involved in ˜90% of U.S. domestic dispute cases[11]

- Approximately 60-80% of meth-using women in drug treatment have reported IPV[12,13]

- Violence and coercion may result from meth-using men's demand for riskier sex acts due to increased arousability or intensification of emotions[14]

[11]Gonzalez et al, Annu Rev Public Health 2010;[12]Cohen et al, Am J Addict 2003;[13]Christian et al, Subst Use Misuse 2007;[14]Brown et al, J Treat Prev 2005

Gaps in Research

- Little is known about the prevalence of intimate partner violence or violence by other types of sex partners in meth users enrolled in HIV prevention interventions.

- May indicate the need to address IPV or partner violence within HIV prevention programs for this at-risk population.

METHODS

FASTLANE

- HIV behavioral intervention trial for HIV-negative, heterosexual meth-using men and women designed to reduce...
  - High risk sexual practices
  - MA use
  - Depressive symptoms

- Study Period: 2006-2010

- Study took place in San Diego

Study Population

- Eligibility Criteria (n=400; 200 men and 200 women)
  - HIV-negative status
  - Aged $\geq$ 18 years
  - Self-identified as heterosexual
  - Had at least one opposite sex partner in the past 2 months
  - Snorted, smoked or injected meth at least once in the past 2 months and at least once in the past 30 days (i.e., minimum of twice in 2 months)

- Current Study
  - Only women enrolled in FASTLANE
  - n=209 women

Study Procedures

- Recruited through community outreach, referrals, word-of-mouth, advertisements

- Participants were randomized to one of two conditions
  - Tri-focal cognitive behavioral therapy (active experimental)
    - Nine 90-minute face-to-face counseling sessions
  - Standard care comparison group (control)
    - Nine weekly face-to-face individual counseling sessions

Study Procedures

- Data Collection
  - Audio computer-assisted self-interviewing
    - Sexual/drug risk behaviors
    - Mental health
    - Abuse experiences
  - Biological testing for STIs (baseline and 12 months)
    - Chlamydia and gonorrhea
    - HIV (using OraSure)
- Follow-up assessments at 4, 8 and 12 months

Lifetime Violence Measures

- **Physical Violence**
  - Participants asked if they "have ever been physically abused (hit or assaulted)?"

- **Sexual Violence**
  - Participants asked if they "have ever been forced or coerced to have sex against their will?"

- **Both Physical and Sexual Violence**
  - First time – age, type of perpetrator
  - Lifetime - # perpetrators, # different times

Recent Violence Measures

- Timeframe for recent violence is past two months

- Physical Violence
  - Cause or threaten to cause physical harm (e.g., slapping, punching, kicking, hitting with an object, assaulting w/knife or other weapon)

- Sexual Violence
  - Rape, forced sexual advances, or non-consensual sexual acts

- Questions asked for each type of sex partner
  - Spouse or live-in
  - Steady
  - Casual
  - Anonymous (i.e., hustler, someone they met at a park)

Measures

- Dependent Variable: Lifetime Intimate Partner Violence
  - Physical and/or sexual violence by a current or former spouse, live-in or steady partner

- Independent Variables
  - Demographics: age, race/ethnicity, employment, marital status
  - Substance abuse behaviors (e.g., binge meth use, meth use during unprotected sex)
  - Sexual risk behaviors (e.g., unprotected vaginal sex, #sex partners)
  - Abuse history (e.g., history of forced first sex)

Statistical Analysis

- ## Descriptive Statistics
  - Frequencies and percentages

- ## Focus on IPV and associated factors using chi-square tests
  - Variables considered in the multivariate model had a p<.20

- ## Logistic Regression Model
  - Multivariate model
    - Backward stepwise regression method used
    - Model fit assessed by Akaike information criterion (AIC))
   - Obtained adjusted odds ratios and 95% confidence intervals

RESULTS

Demographic Characteristics (n=209)

Variable	N (%)
Age in yrs, mean (SD)	36.4 (9.1)
Race/Ethnicity	
White	77 (36.8)
African American/Black	56 (26.8)
Latina	44 (21.1)
Marital Status	
Never married	100 (47.9)
Married	22 (10.5)
Separated/Filing for Divorce	33 (15.8)
Children <18 yrs	112 (74.2)
No H.S. Diploma/GED	60 (28.7)
Unemployed	167 (79.9)

SD, standard deviation

Lifetime Prevalence of Physical and/or Sexual Violence (n=209)
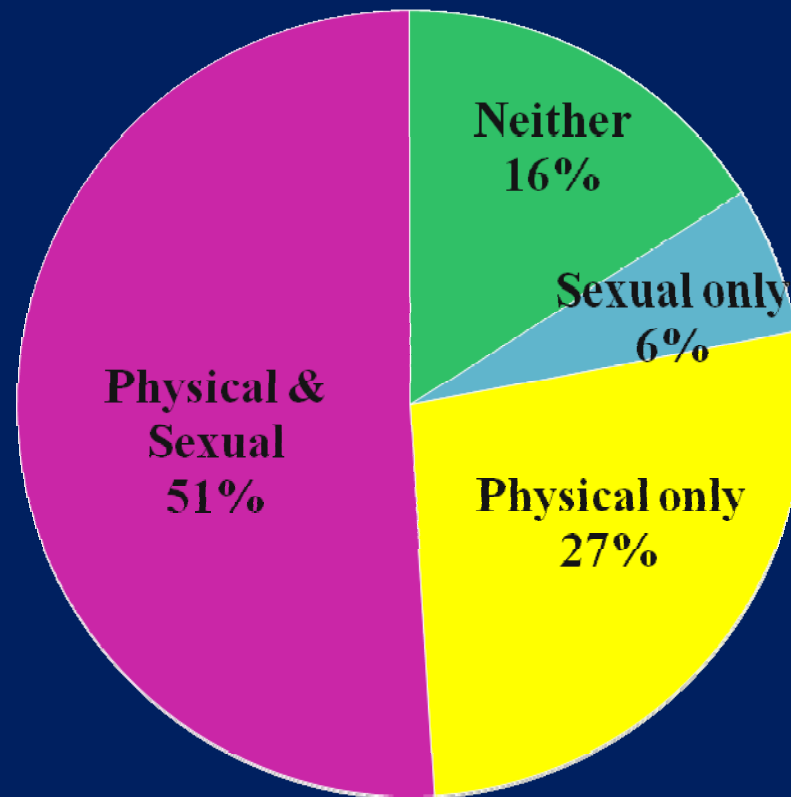
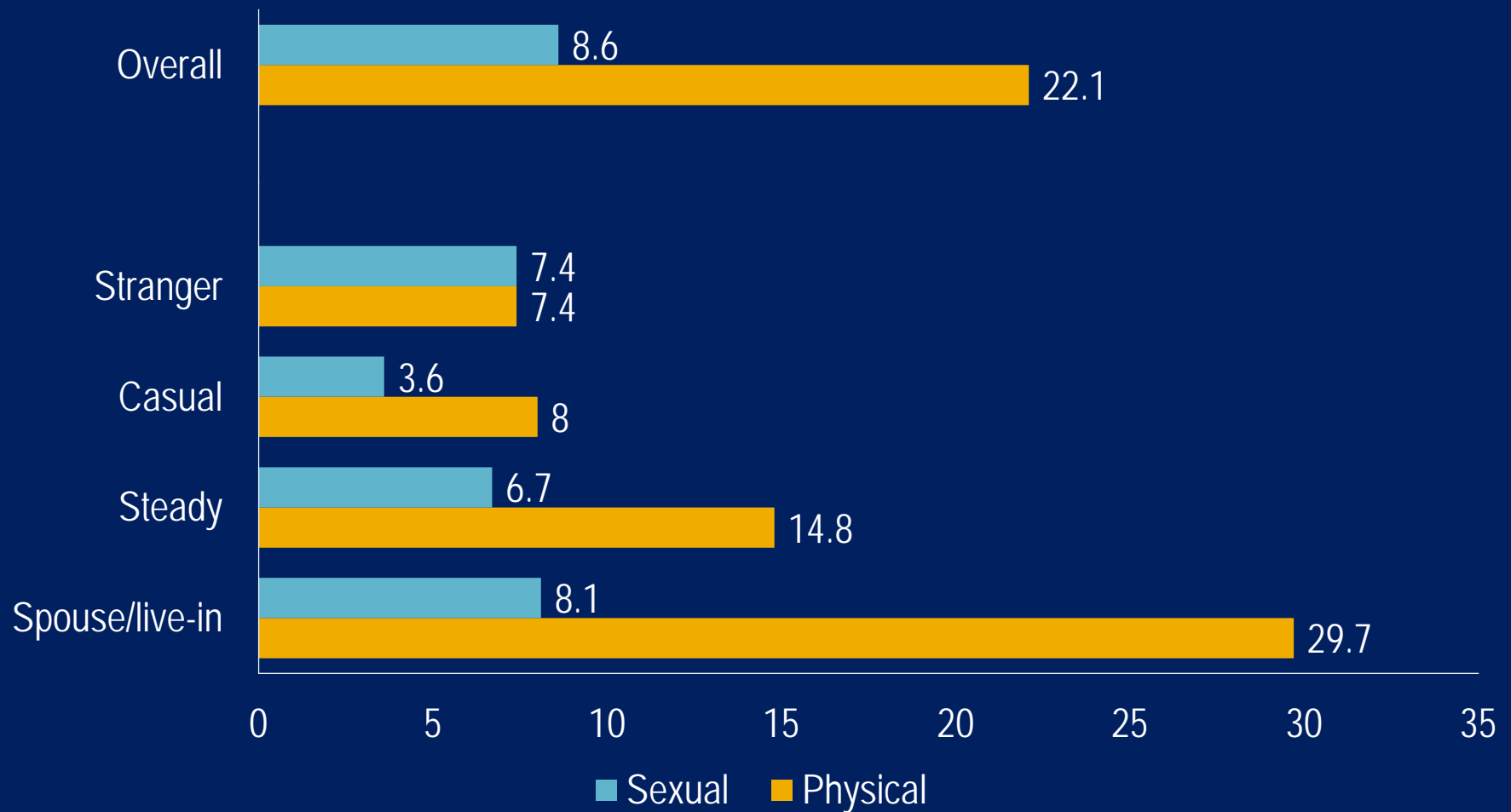# Contextual Factors of Physical/Sexual Violence Incidents (n=209)

| Contextual Factor	Physical (n=164) Median (IQR)	Sexual (n=120) Median (IQR)
Age at first incident	14 (11,19)	19 (16,24)
No. times occurred in lifetime	10 (4,22)	3 (1,6)
No. perpetrators in lifetime	3 (2,5)	3 (1,5)

Notes: IQR, interquartile range
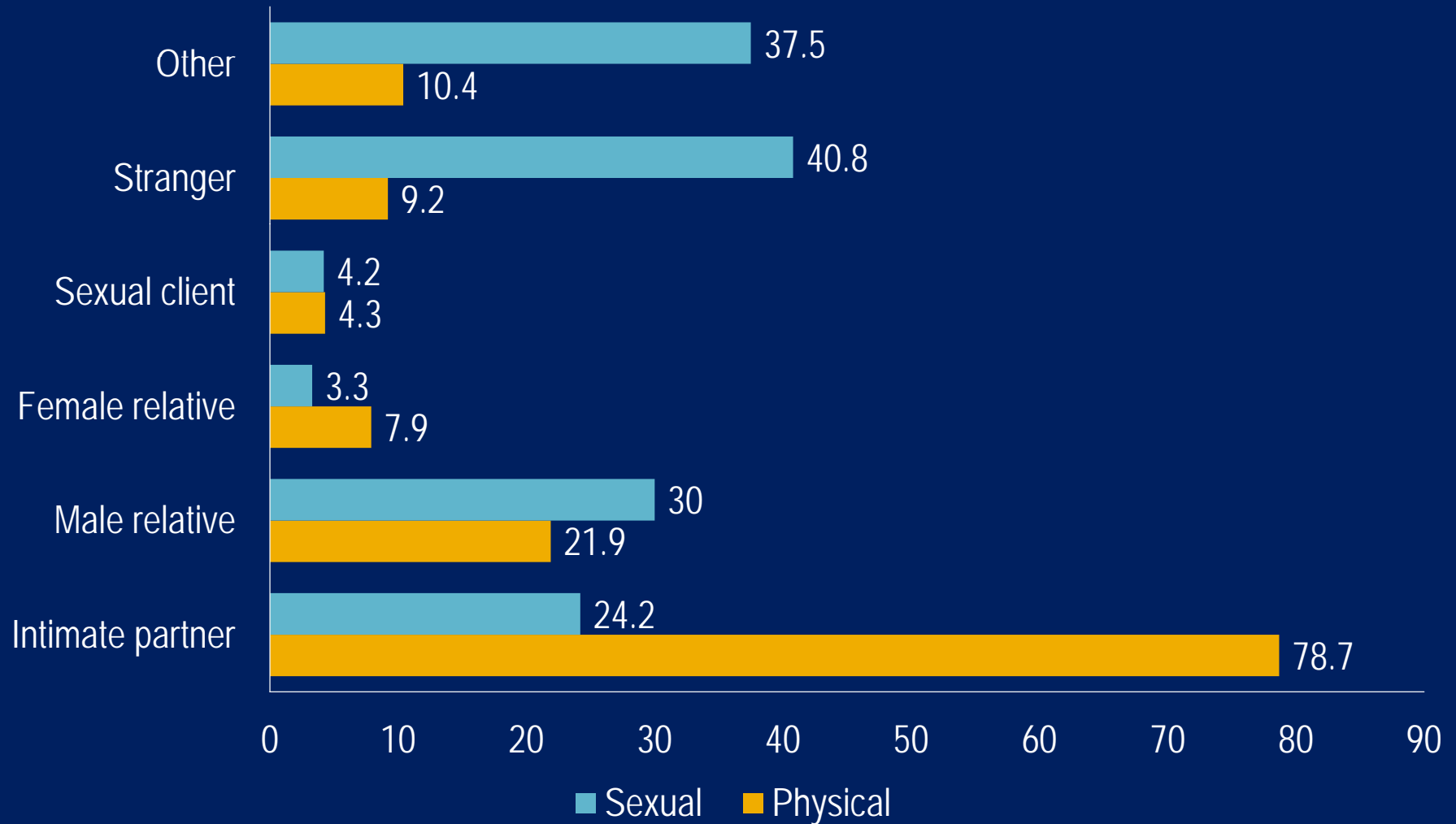
Prevalence of Physical/Sexual Violence in the Past 2 Months by Type of Sex Partner

Lifetime Intimate Partner Violence

Distribution of Lifetime IPV (n=209)
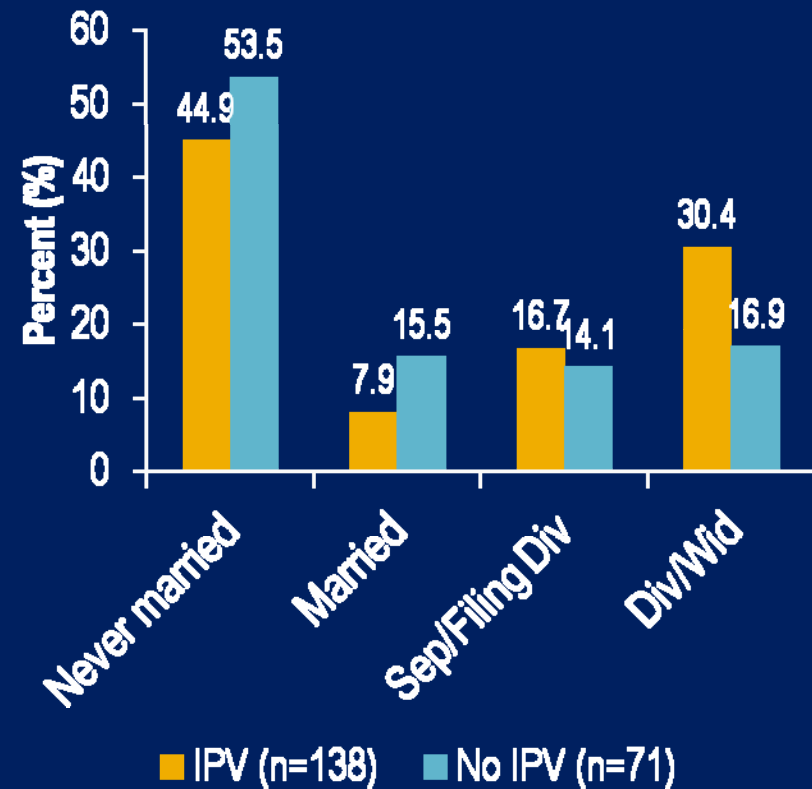
No IPV 34%

IPV 66%
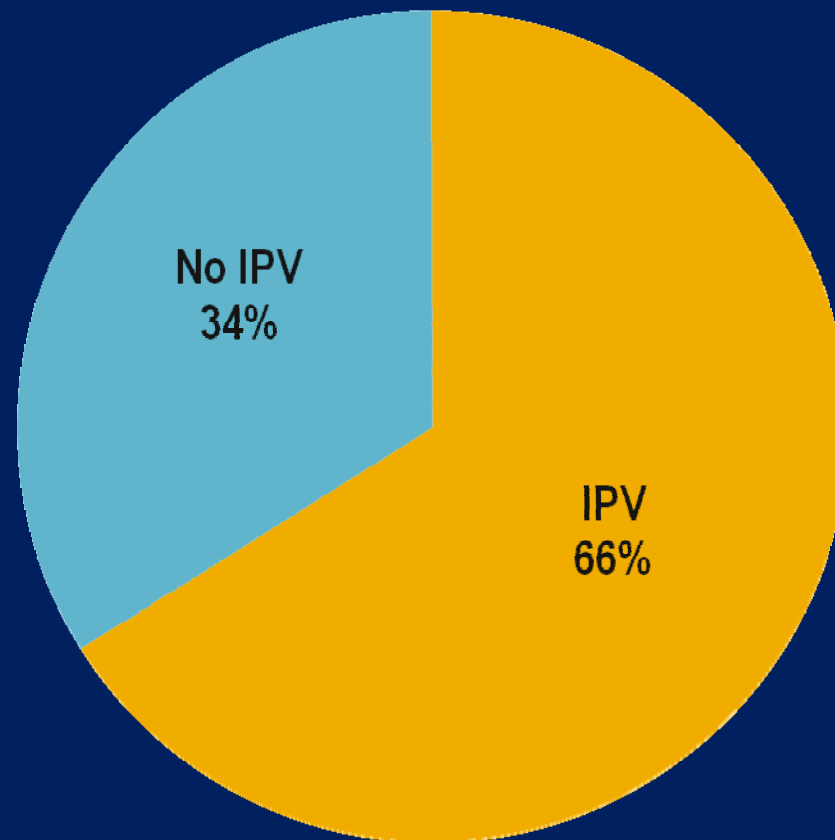
Bivariate Associations Between Sociodemographics and IPV
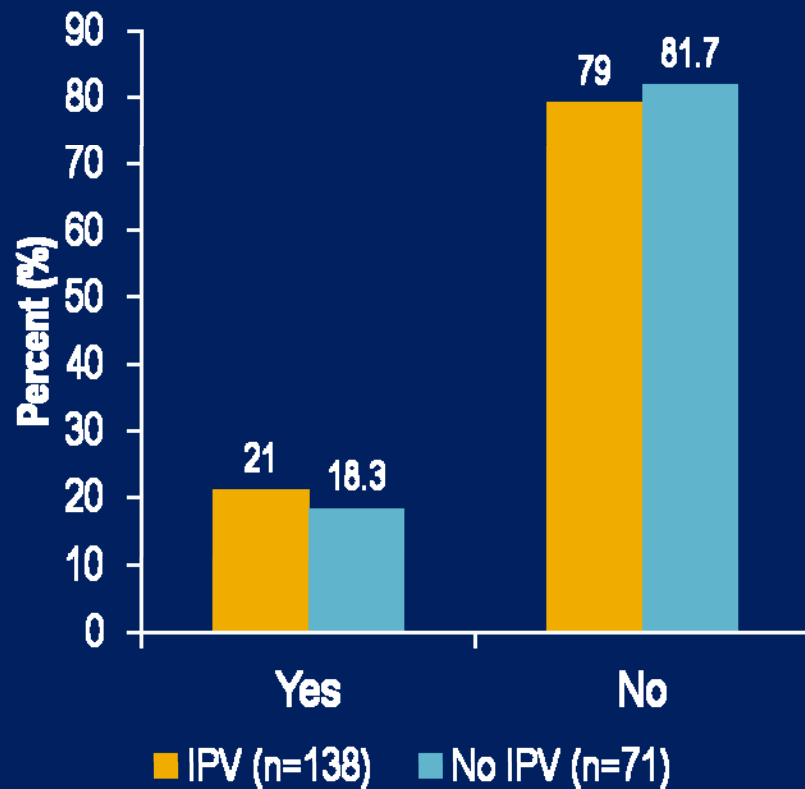
Race/ethnicity and Lifetime IPV
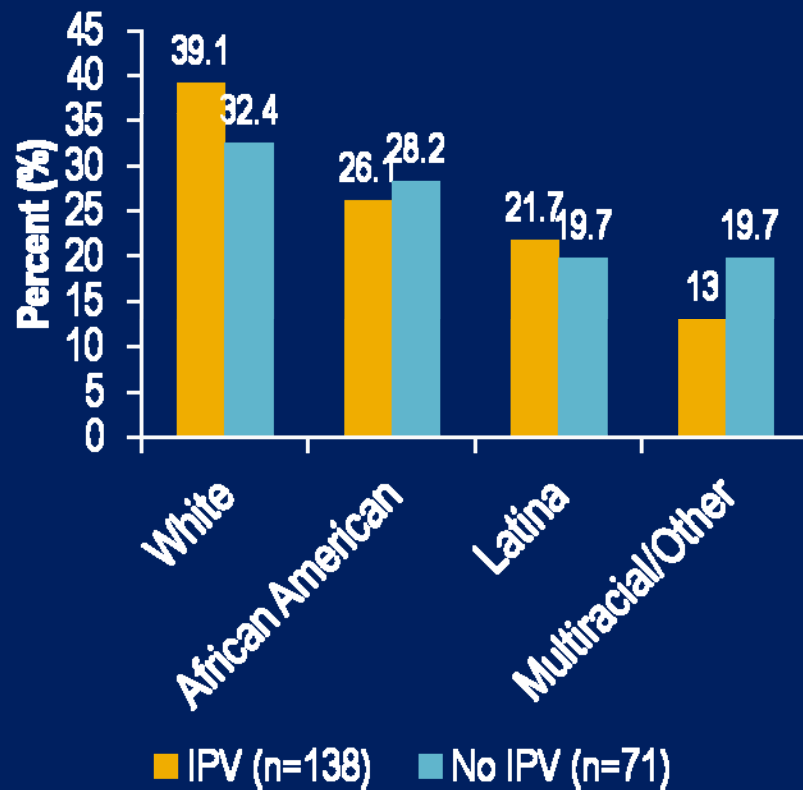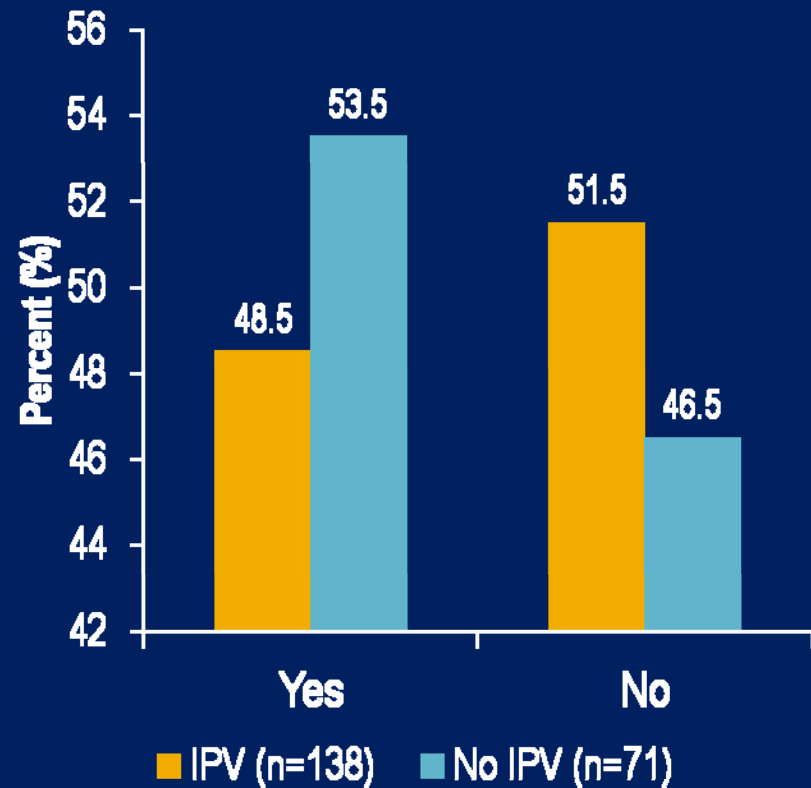
Marital Status and Lifetime IPV

Bivariate Associations Between Sociodemographics and IPV

Employment Status and Lifetime IPV

Felony Conviction and Lifetime IPV

Bivariate Associations Between Sexual/Drug Risk Behaviors and IPV (n=209)

Sexual/Drug Risk Behavior	IPV (n=138) N %)	No IPV (n=71) N (%)	p-value
Binge meth user	66 (31.6)	37 (52.1)	0.56
Sex w/HIV+ partner in past 2 months	90 (65.2)	40 (56.3)	0.20
High on meth during unprotected sex w/steady partner	74 (63.8)	25 (42.4)	< 0.01
High on meth during unprotected sex w/casual or anonymous partner	70 (68.6)	24 (53.3)	0.08
2+ sex partners in past 2 months	81 (58.7)	43 (60.6)	0.79
Exchange sex partner in past 2 months	49 (35.5)	25 (35.2)	0.99
Anonymous sex partner in past 2 months	41 (29.7)	13 (18.3)	0.07
Unprotected sex w/steady in past 2 months	134 (97.1)	64 (90.1)	0.04
Forced first sex*	34 (38.2)	5 (16.1)	0.02

*Assessed only among 120 women w/histories of sexual violence.

Logistic Regression

Sexual/Drug Risk Behavior	OR (95% CI)	AdjOR (95% CI)
2+ sex partners in past 2 months	0.93 (0.52-1.66)	---
Exchange sex partner in past 2 months	1.01 (0.56-1.84)	---
Anonymous sex partner in past 2 months	1.89 (0.93-3.81)	---
Sex w/HIV+ partner in past 2 months	1.45 (0.81-2.61)	---
Unprotected sex w/steady in past 2 months	3.66 (1.04-12.97)	4.33 (1.01-17.03)
Forced first sex	4.31 (1.61-11.59)	5.48 (1.87-16.07)
High on meth during unprotected sex w/steady partner	2.13 (1.18-3.84)	2.76 (1.41-5.40)
High on meth during unprotected sex w/casual or anonymous partner	2.02 (1.11-3.65)	---
Binge meth user	0.84 (0.48-1.49)	---

OR, odds ratio; CI, confidence interval; *Adjusted for age, race/ethnicity, marital status, and intervention group.

CONCLUSIONS

Conclusions

- High rates of physical and sexual abuse among meth-using women in San Diego, CA
  - Context of abuse experiences significant

- High rates of intimate partner violence

- High rates of partner violence

- High risk sexual behaviors and forced first sex are independently associated with IPV

Future Directions in Research

- Examine the role of mental health (i.e., depression, PTSD) in associations between IPV and HIV risk

- Conduct event-level analyses on violence in the context of high-risk behaviors

- Improved research study designs
  - Longitudinal
  - Mixed methods (qualitative and quantitative)

Implications

- Women in substance abuse treatment programs need further assessment to include IPV

- Women in substance abuse treatment need assessment and interventions for IPV and HIV risk

- HIV prevention interventions focused on drug-using women need to integrate partner violence and sexual relationship power dynamics in the context of safer sex behaviors

Thank You

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