

Cocaine, Methamphetamine, and Compulsive Sexuality

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Prevalence

- **Worldwide, amphetamine and MA are the most widely abused illicit drugs after cannabis**
- **According to the WHO, worldwide**
 - **Over 35 million people regularly abuse AMP & MA**
 - **Approximately 15 million use cocaine (mostly US)**
 - **Fewer than 10 million use heroin**

Methamphetamine

- **Production is cheap and easy and there is widespread access to the precursor chemicals (mainly ephedrine)**
- **Recipes for making MA can be readily found in underground publications and on the internet**
- **MA users spend 25% of what cocaine users pay for their drug supply**
- **MA users use more days per week and spend more time under the influence**

Cocaine

- **Plant derived**
- **Smoked, snorted, injected**
- **Most prevalent in western areas of the U.S.**
- **Used medically as a local anesthetic in some surgical procedures**

Methamphetamine

- **Synthesized, cheaper**
- **Smoked, snorted, injected**
- **Widespread prevalence, but more so in large metro areas than in rural areas**
- **Used medically to treat obesity and narcolepsy**

Euphoric Effects

Cocaine

- Intense “rush” when smoked or injected
- Less intense, more gradual effects when snorted
- High lasts up to 20-30 min and 50% of the drug is metabolized in 1 hour

Methamphetamine

- Intense “rush” when smoked or injected
- Less intense, more gradual effects when snorted or ingested orally
- High lasts from 8-24 hrs and 50% of the drug is metabolized in 12 hrs

Cocaine & Methamphetamine

Acute Effects

- **Increased activity, wakefulness, and attention**
- **Increased body temperature, HR, and blood pressure**
- **Vasoconstriction leading to heart attack (MI) and stroke (CVA) even in absence of pre-morbid risk**
- **Grand mal type seizures with loss of consciousness**
- **Use during pregnancy can cause prenatal complications and premature delivery**

Cocaine & Methamphetamine Prevalence

- **MA has virtually replaced COC as the stimulant drug of choice in most areas of the U.S., except the northeast**
- **Use of MA, particularly in the form of “crystal meth” or “ice” has gained widespread popularity among gay men including in regions previously unaffected by the MA epidemic**

Cocaine & Methamphetamine

Sexual Effects

- **MA more likely to stimulate hypersexuality in both men and women**
- **More intense, extreme, and longer-lasting sexual behaviors with MA**
- **MA is less likely than COC to cause sexual dysfunction thereby increasing likelihood of MA users engaging repeatedly in high-risk sex behaviors**

Issues of Heightened Concern About Methamphetamine Use

- **Less tolerance develops to MA's ability to increase libido and stimulate hypersexual behavior**
- **More anal sex, more unprotected sex, and greater number of sex partners in females and in gay men MA users**
- **Higher rates of HIV positivity in MA users**
- **Higher rates of IV use and sharing of injection apparatus in MA users**

Issues of Heightened Concern About Methamphetamine Use

- A recent study* of gay and bisexual MA users in LA found that during the 12 months prior to entering treatment
 - 63% reported having anal sex without a condom
 - 56% reported having sex with someone who had HIV

* Frosch et al. *Journal of Substance Abuse Treatment*, Vol 13, pp. 483-486, 1996.

Cocaine & Methamphetamine

Chronic Effects

- **Dependence** characterized by preoccupation, cravings, depression, anxiety, unstable moods, and continued use despite adverse consequences, but *no distinct physical withdrawal syndrome*
- **Psychotic** behavior characterized by paranoia, hallucinations, and mood disturbances.
- **Violent** paranoid behavior- more common among MA users
- **Formication**- delusions of insects creeping on the skin
- **Suicidal** thoughts

Cocaine & Methamphetamine

Misdiagnosis

- **Chronic use of stimulant drugs often produces changes in affect, behavior, mood, and personality that mimic a wide variety of psychiatric disorders**
 - **Anxiety Disorders**
 - **Depressive Disorders**
 - **Bipolar Disorders**
 - **Attention and Hyperactivity Disorders (ADHD)**

Cocaine & Methamphetamine

Chronic Effects

- **Psychotic reactions are more common and often more intense, violent, and longer lasting with MA as compared to COC**

Cocaine & Methamphetamine

Reverse Tolerance

- Also known as brain sensitization or kindling which is unique to stimulant drugs
- With chronic use of stimulants, there is a lowering of the dose required to cause drug-induced psychotic reactions and these reactions occur sooner after drug use is resumed following a period of abstinence

Cocaine & Methamphetamine

Increased Transmission Risk for HIV and Hepatitis C

- **Intravenous use more common with MA than COC**
- **High-risk sexual behaviors also more common and intense with MA than COC due mainly to greater impairment of sexual functioning with chronic COC than MA use**

SEX-DRUG CONNECTION

Gay and Bisexual Men

- **The group with strongest connection between MA use and high-risk sexual behaviors**
- **MA use associated with highest rates of unprotected sex as compared to other drugs**
- **Increased libido, multiple episodes of vigorous anal sex with anonymous partners, little or no concern about condom use**
- **HIV seropositivity rates are highest with IV use**

SEX-DRUG CONNECTION

Gay and Bisexual Men

- **Marathon sex binges (orgies) involving multiple partners**
- **MA has been described as a means of**
 - **overcoming sexual fears**
 - **being sexually connected**
 - **crossing psychological and social barriers or taboos around same-sex desire**
 - **temporarily counteracting the the physical and mental debilitating and devitalizing of AIDS**

MA USE and HIV Viral Load

- **Recent study*** of 230 HIV+ individuals comparing viral load (VL) in *Current* MA users, *Former* MA users, those who *Never* used MA
- **Viral loads were directly related to MA use with *Current* users having the highest VL, *Former* users having the next highest VL, and those who *Never* used having the lowest VL**

Ellis RJ et al. Increased human immunodeficiency virus loads in active methamphetamine users. *Journal of Infectious Diseases*, 188, 2003

MA USE and HIV Viral Load **(Ellis et al., 2003)**

- **MA users less likely to comply with antiretroviral therapy**
- **Among subjects who did comply, VL still significantly higher in *Current* and *Former* users**
- **Investigators suggest that MA use may reduce efficacy of antiretroviral therapy and/or increase replication rate of HIV virus**

Cocaine & Methamphetamine

Neurotoxicity

- MA is neurotoxic in animals ranging from mice to monkeys
- MA damages neurons that produce the neurotransmitters dopamine and serotonin
- MA doses taken by humans are comparable to those causing neurotoxicity in animals
- COC is not neurotoxic to dopamine and serotonin neurons

Cocaine & Methamphetamine

Patterns of Use

- **Binge patterns or “runs” lasting days or weeks without sleep followed by cognitive impairment and extreme fatigue**
- **Often these binge patterns involve various types of sexual acting out behaviors and high-risk sex**
- **Use of alcohol, benzodiazepines, or other sedatives to “come down” from COC or MA**
- **Tolerance develops with repeated use leading to escalation of dose and often switching to a more intensive method of use (from snorting to smoking or iv use)**

Cocaine & Methamphetamine

General Treatment Considerations

- **Most effective treatments are cognitive behavioral interventions, especially in the early phases of treatment**
- **Aim to modify thinking, expectations, and behaviors and increase coping skills**
- **Motivation-enhancement techniques are crucial to facilitate treatment engagement and retention**
- **Recovery support groups (AA, CA, CMA) in conjunction with group/individual therapy and urine monitoring**

Cocaine & Methamphetamine

General Treatment Considerations

- **No effective pharmacological agents for treating dependence on stimulant drugs**
- **Recent study suggests that methylphenidate (Ritalin) might be helpful in treating cocaine addicts with ADHD**
- **Antidepressant medications can be helpful in reducing depressive symptoms in the early abstinence period, but do NOT prevent relapse to drug use**

Cocaine & Methamphetamine

Treatment Considerations

- Treatment must identify and address drug related sexual behaviors
- Failure to do so contributes to chronic “reciprocal” relapses and exposure to sexually transmitted diseases

Cocaine & Methamphetamine

Emergency Treatment of Overdose

- **Ice bath to counteract hyperthermia**
- **Anticonvulsant drugs to control seizures**
- **Antianxiety and/or antipsychotic drugs to treat panic anxiety, extreme agitation, and psychosis**

Information Sources

- **National Clearinghouse for Alcohol and Drug Information (NCADI)**
www.health.org
- **National Institute on Drug Abuse (NIDA)** www.drugabuse.gov

COCAINE-SEX CONNECTION

Clinical Profile

- **Seen mostly in male patients: 40 to 60%**
- **Fewer than 15 to 20% of female patients**
- **More extreme in smokers vs. snorters**
- **Almost always associated with a binge pattern where the user disappears for 1 to 3 days at a time**
- **Often overlooked in the initial clinical assessment**
- **Contributes to chronic relapse and treatment failure**
- **Contributes to spread of STDs**

COCAINE-SEX CONNECTION

Clinical Profile

- **Most common sexual behaviors**
 - **Compulsive masturbation**
 - **Anonymous sex (prostitutes, pickups)**
 - **Peep shows, porno movies**
 - **Internet and/or phone sex**

COCAINE-SEX CONNECTION

Clinical Profile

- **Intensifies shame, guilt, depression, suicide risk, and STD risk**
- **Often associated with depression, dysthymia, and bipolar disorder**
- **Often associated with compulsive spending and/or gambling (addictive coping style, impulse control disorders)**

COCAINE-SEX CONNECTION

Clinical Profile

- **Behavior becomes increasingly stereotyped and ritualistic**
- **Impaired sexual performance in chronic users further escalates the intensity of sexual fantasies and acting-out behaviors**
- **When sexual performance is totally eliminated by chronic cocaine use, sex becomes a purely mental/visual experience devoid of any physical contact with another person**

SEXUAL BEHAVIORS QUESTIONNAIRE

- Is your cocaine use ever associated with sexual thoughts, feelings, fantasies, or behaviors?
- Roughly what percentage of your cocaine use episodes involve sexual thoughts, feelings, fantasies, or behaviors? (a) 0% (b) 25% (c) 50% (d) 75% (e) 100%

SEXUAL BEHAVIORS QUESTIONNAIRE

- **Does cocaine increase your sex drive ?**
- **Does cocaine impair your sexual performance ?**
- **Are you more likely to have sex when using cocaine?**

SEXUAL BEHAVIORS QUESTIONNAIRE

- **Are you more likely to have sex with a prostitute, pickup, other unknown partner, or someone other than your mate when using cocaine?**
- **Do you think that your cocaine has caused you to become preoccupied or obsessed with sex or made your sex drive abnormally high?**

SEXUAL BEHAVIORS QUESTIONNAIRE

- **Are you less likely to practice safe sex when high on cocaine ? (e.g., not use condoms, be less careful about who you choose as a sex partner)**
- **When high on cocaine, do you perform certain sex acts that are atypical for you? (e.g., marathon masturbation, sadomasochistic sex, go to “peep” shows, cross-dress, voyeurism, expose yourself)**

SEXUAL BEHAVIORS QUESTIONNAIRE

- **Is your cocaine use so strongly associated with sex that it will be difficult for you to separate them from one another?**
- **In prior attempts to stop using cocaine, have sexual thoughts, feeling, and/or fantasies led to relapse?**
- **Are you concerned that if you stop using cocaine sex will not be (has not been) as interesting or pleasurable for you (or perhaps even boring) ?**

SEXUAL BEHAVIORS QUESTIONNAIRE

- **Have sexual fantasies or desires ever stimulated your desire to use cocaine?**
- **Are you concerned that your sexual fantasies or desires will make it harder for you to stop using cocaine?**

SEXUAL BEHAVIORS QUESTIONNAIRE

- **Has your sexual behavior on cocaine caused you to question or have concerns about your sexual orientation?**
- **Has your sexual behavior on cocaine caused you to feel that you are sexually perverted or abnormal?**
- **Prior to getting involved with cocaine were you ever concerned that your sex drive was abnormally high or that you were preoccupied with sex?**

SEXUAL BEHAVIORS QUESTIONNAIRE

- Prior to getting involved with cocaine were you ever concerned that your sex drive was abnormally low or that your sexual performance was inadequate ?
- Do you want help with any cocaine-related sexual issues?

Sex-Drugs Survey

Subject Sample

321 Outpatients

New York & Los Angeles

Primary Substance Dependence

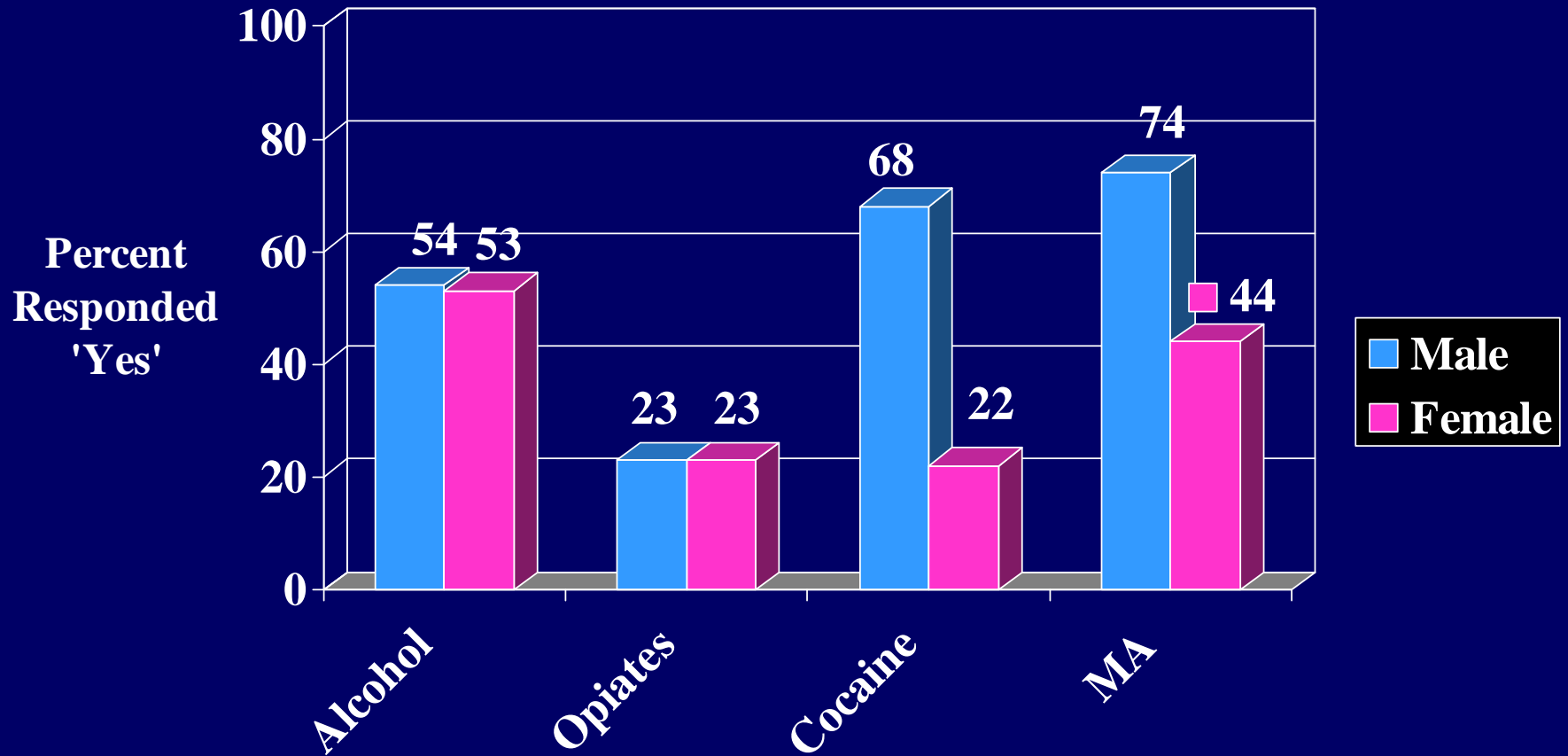
25-Item Questionnaire

Subject Sample

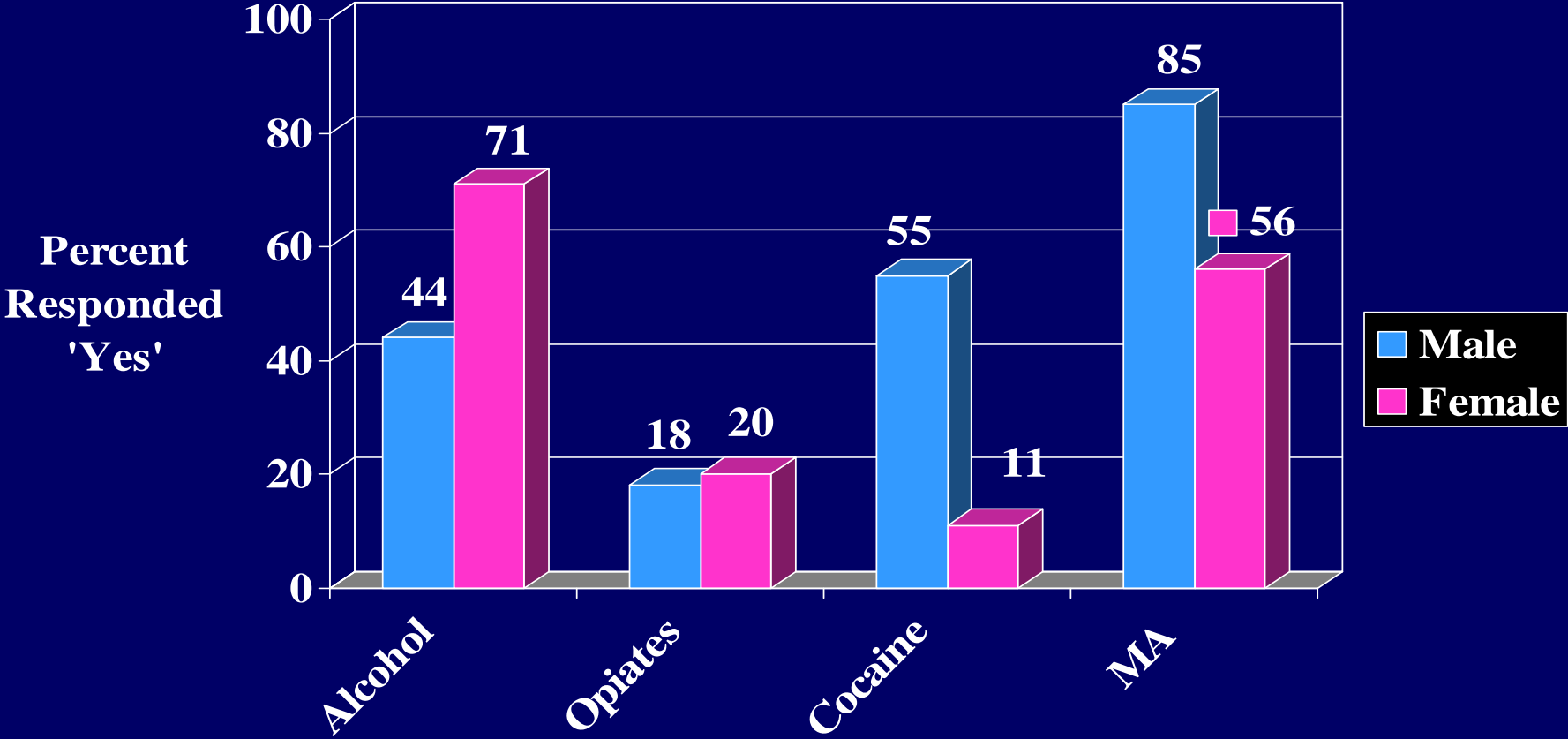
N = 321

Alcohol (N = 75) 41 Male 34 Female	Opiates (N=138) 94 Male 44 Female
Cocaine (N = 56) 38 Male 18 Female	Metamph (N=52) 34 Male 18 Female

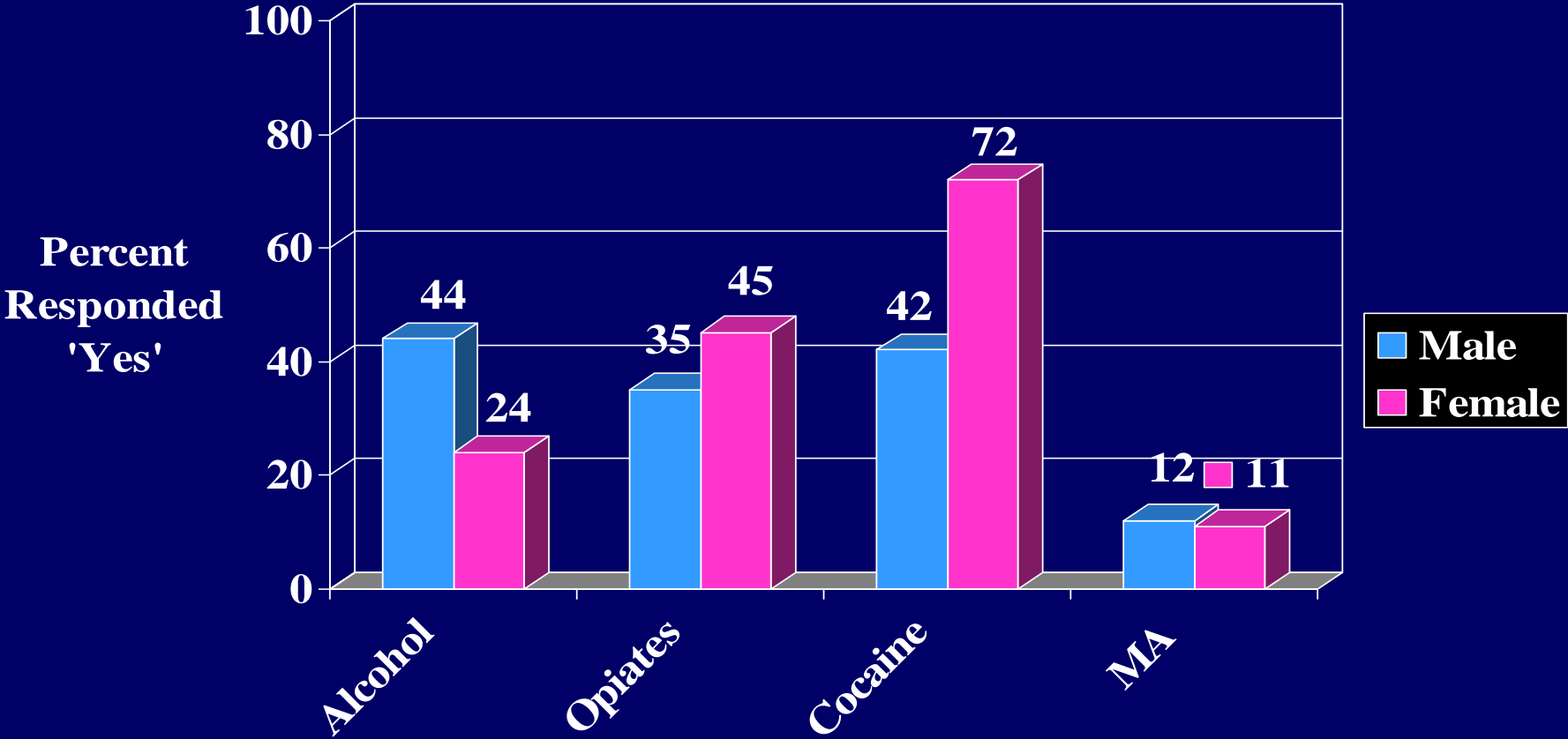
Q1: My sexual thoughts, feelings, and behaviors are often associated with use of these substances:



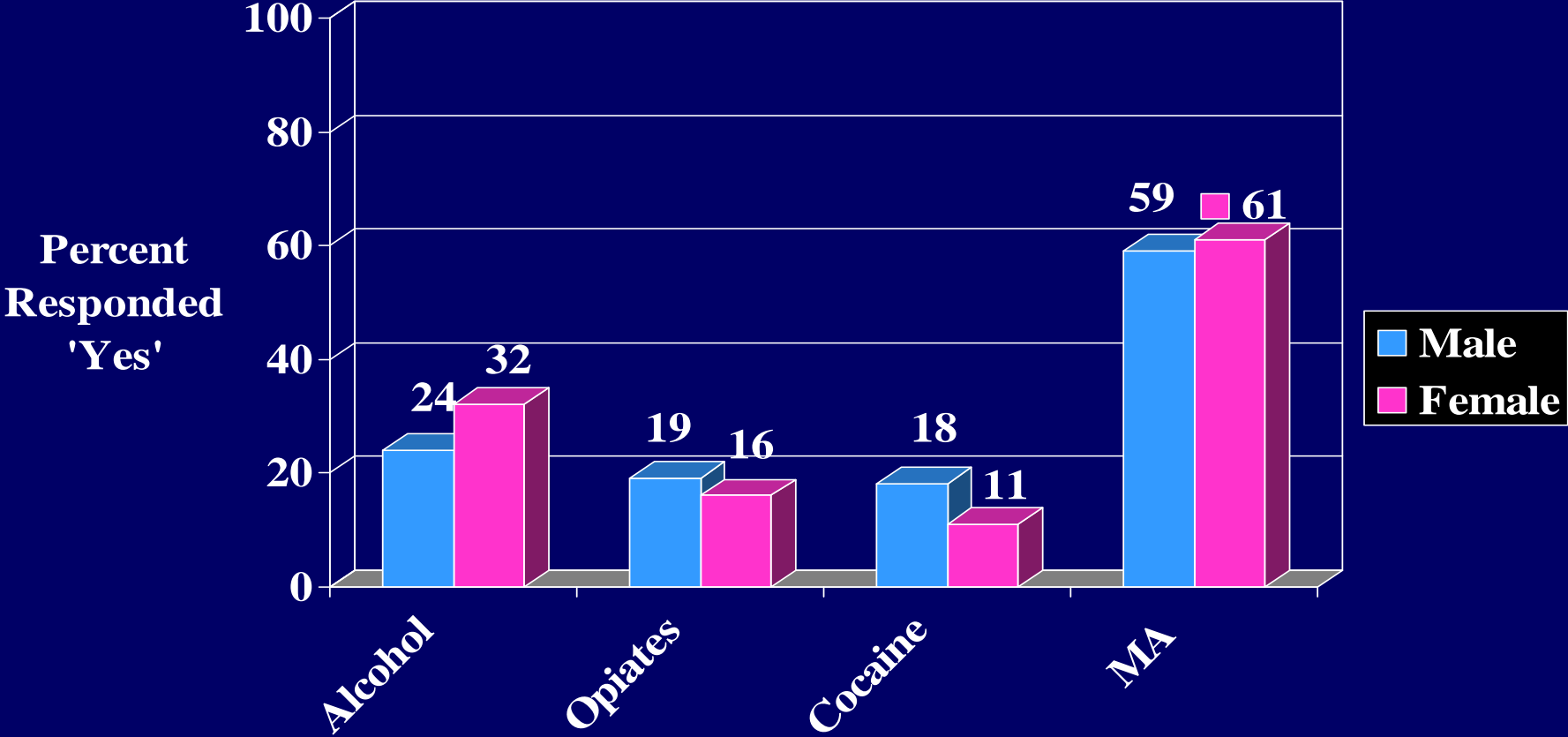
Q2: My sex drive is increased by use of these substances:



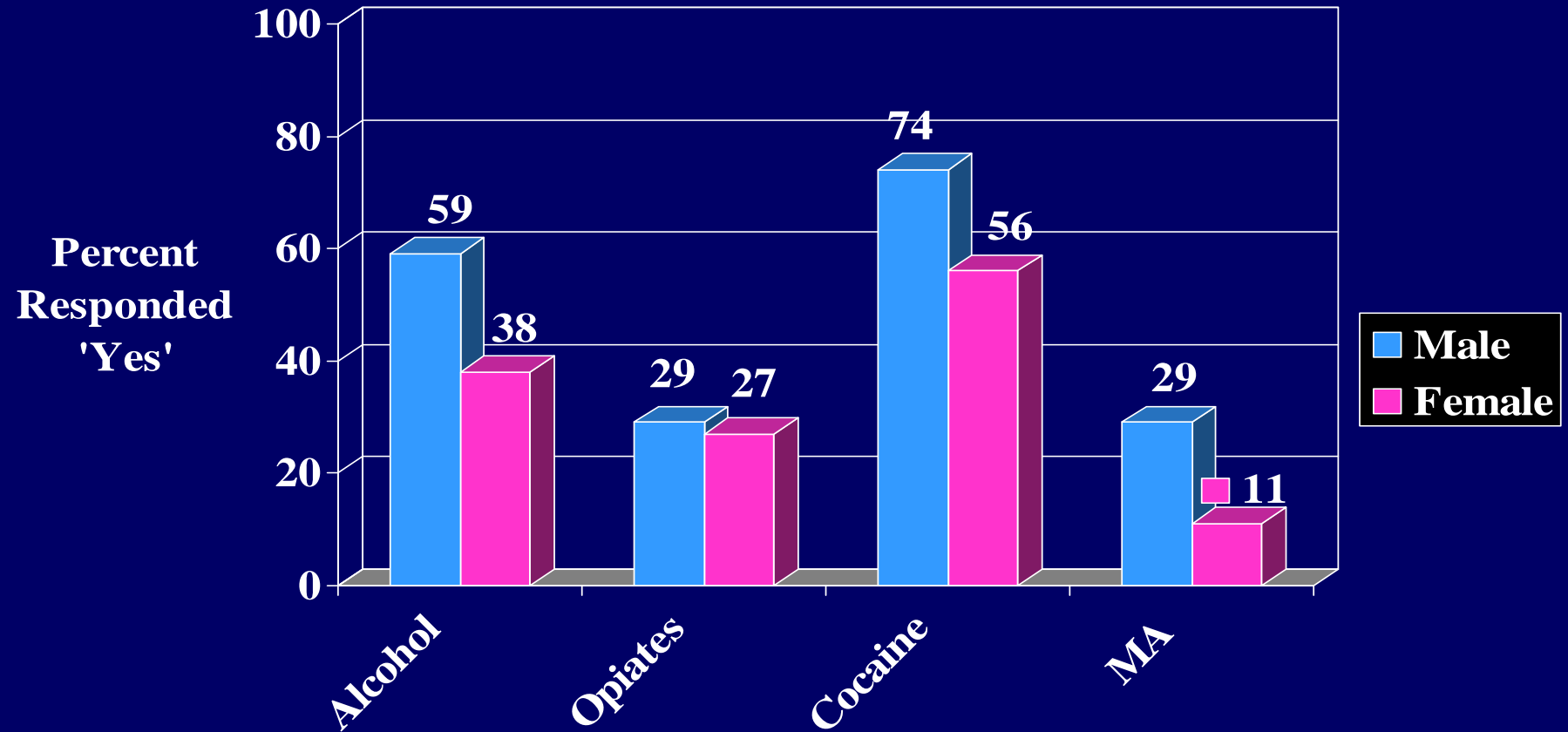
Q3: My sexual drive is decreased by use of these substances:



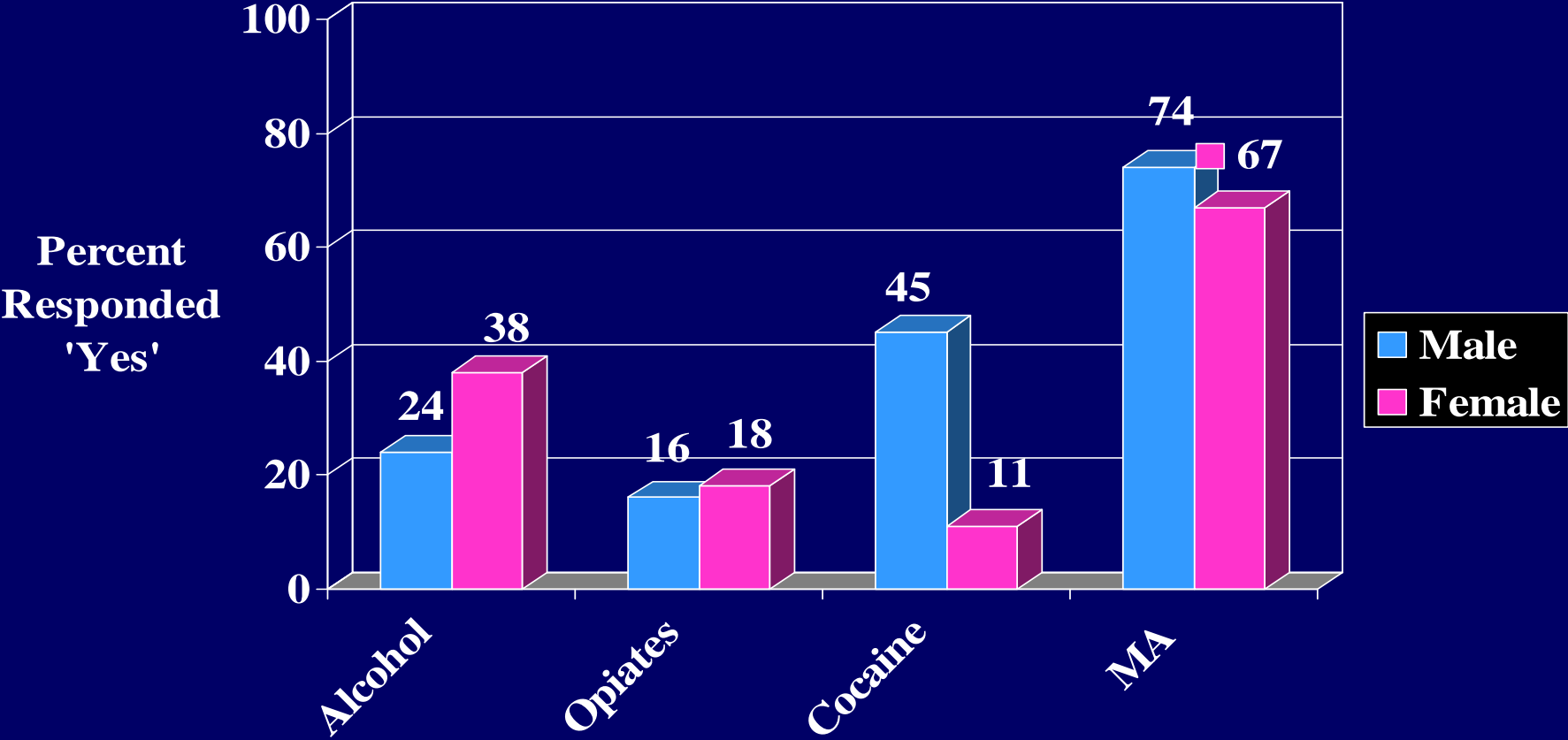
Q4: My sexual performance is improved by use of these substances:



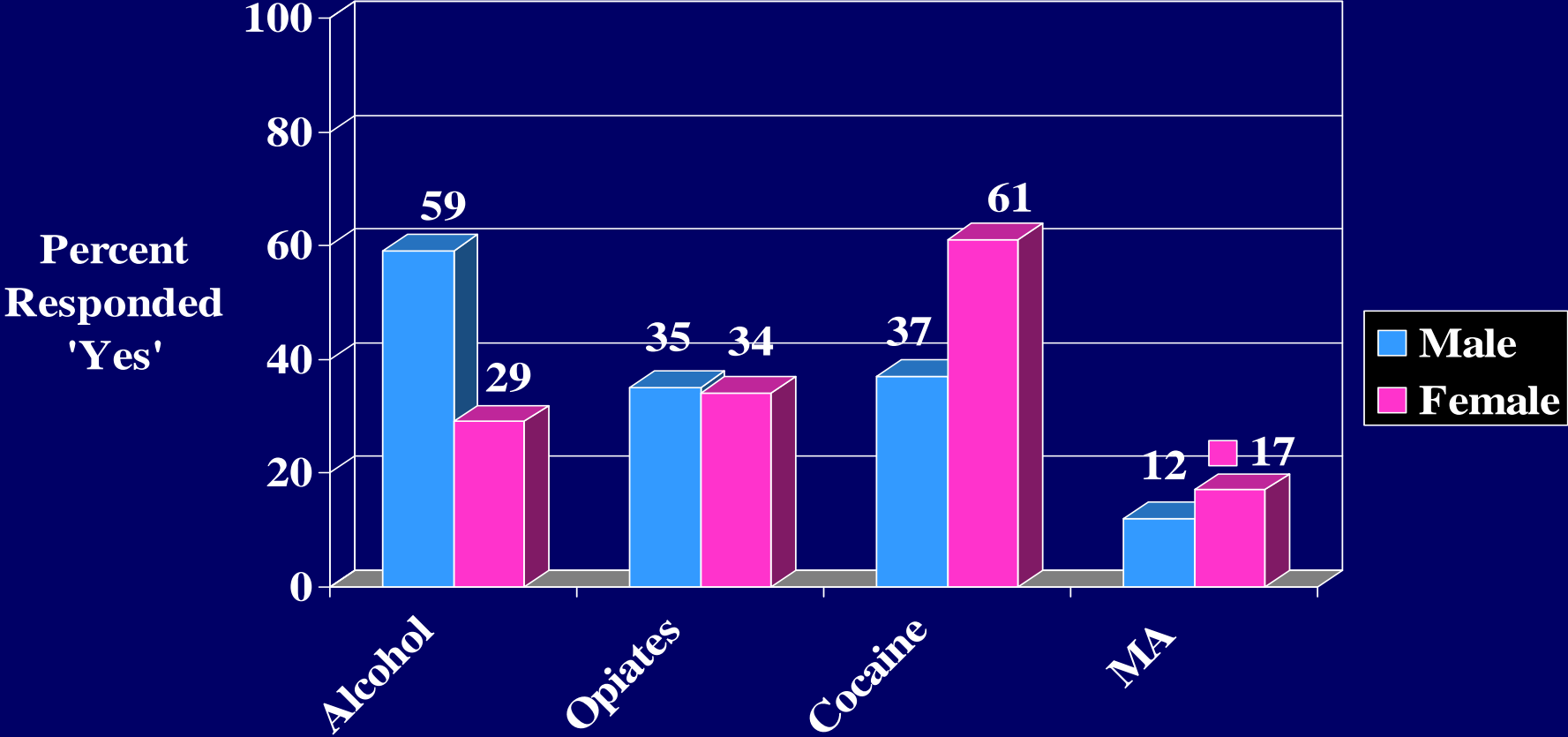
Q5: My sexual performance is impaired by use of these substances



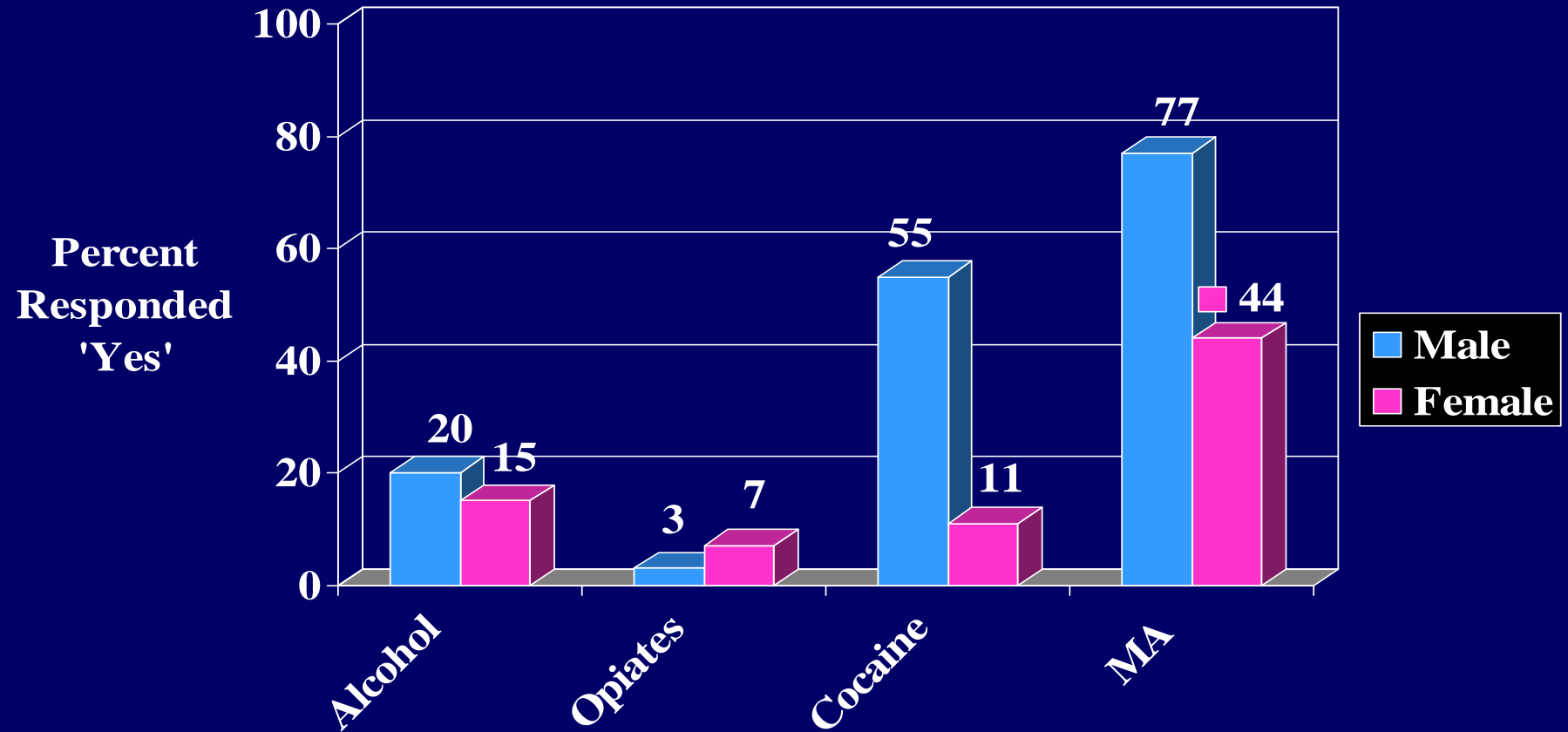
Q6: My sexual pleasure is enhanced by use of these substances:



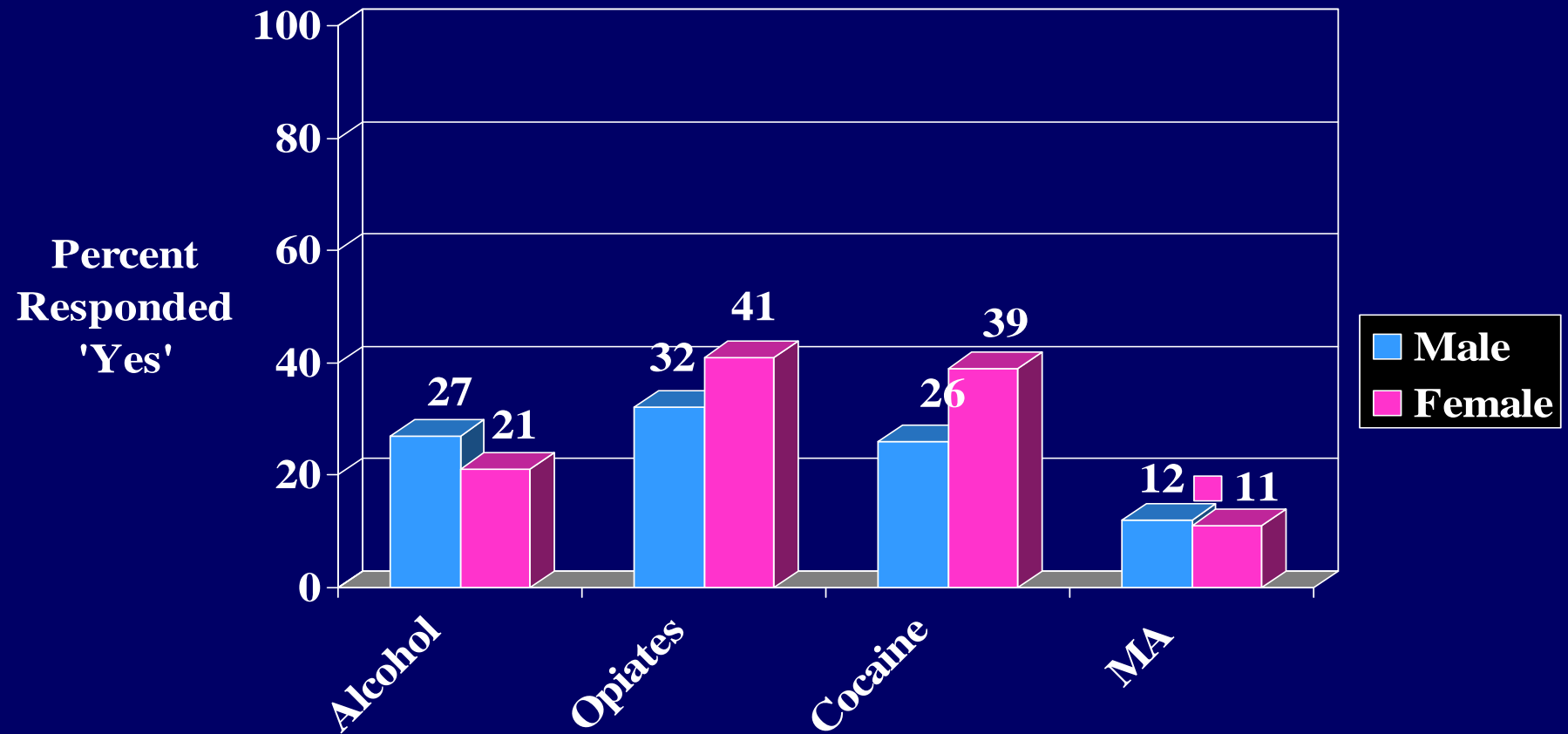
Q7: My sexual pleasure is *reduced* by use of these substances:



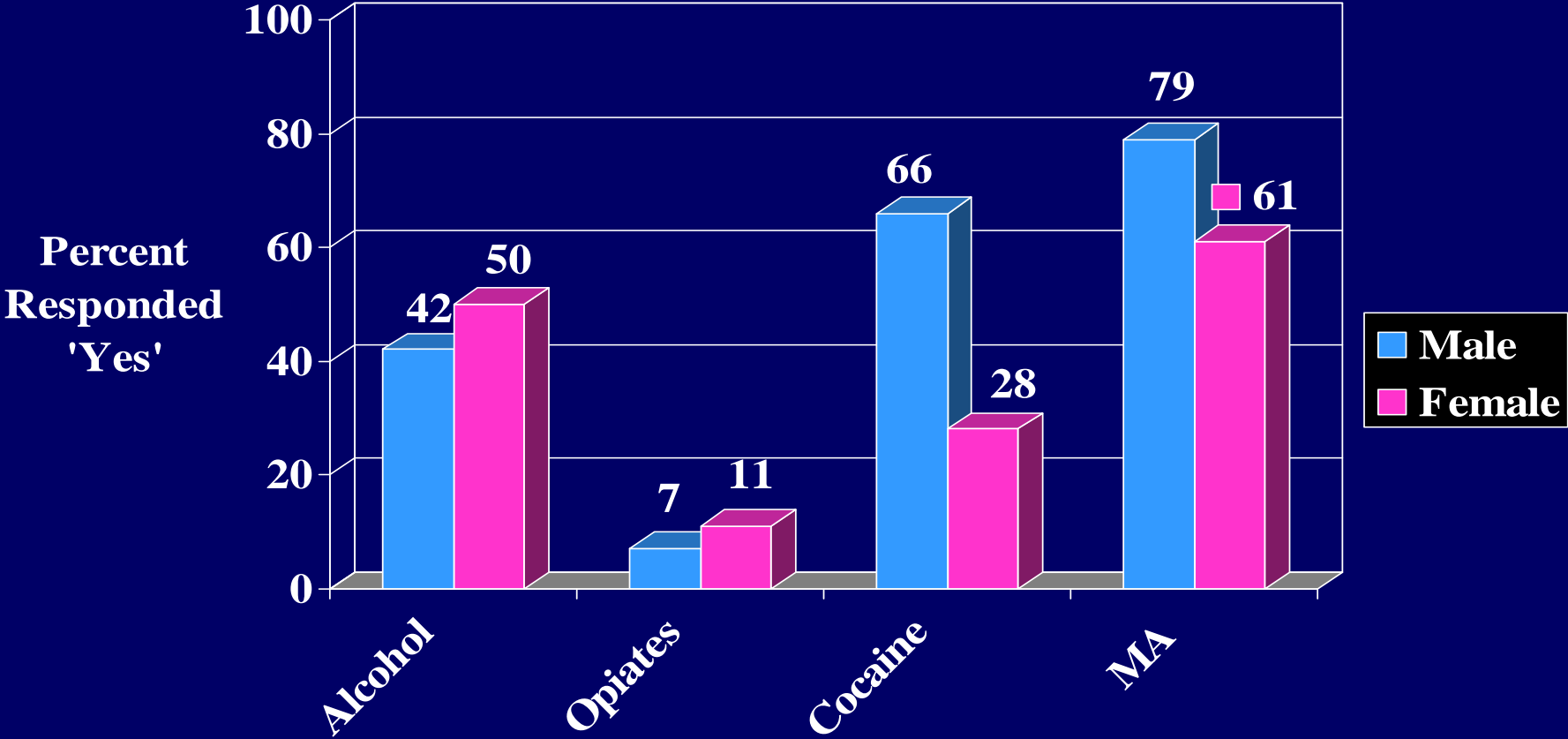
Q8: My use of these substances has made me feel obsessed with sex and/or made my sex drive abnormally high.



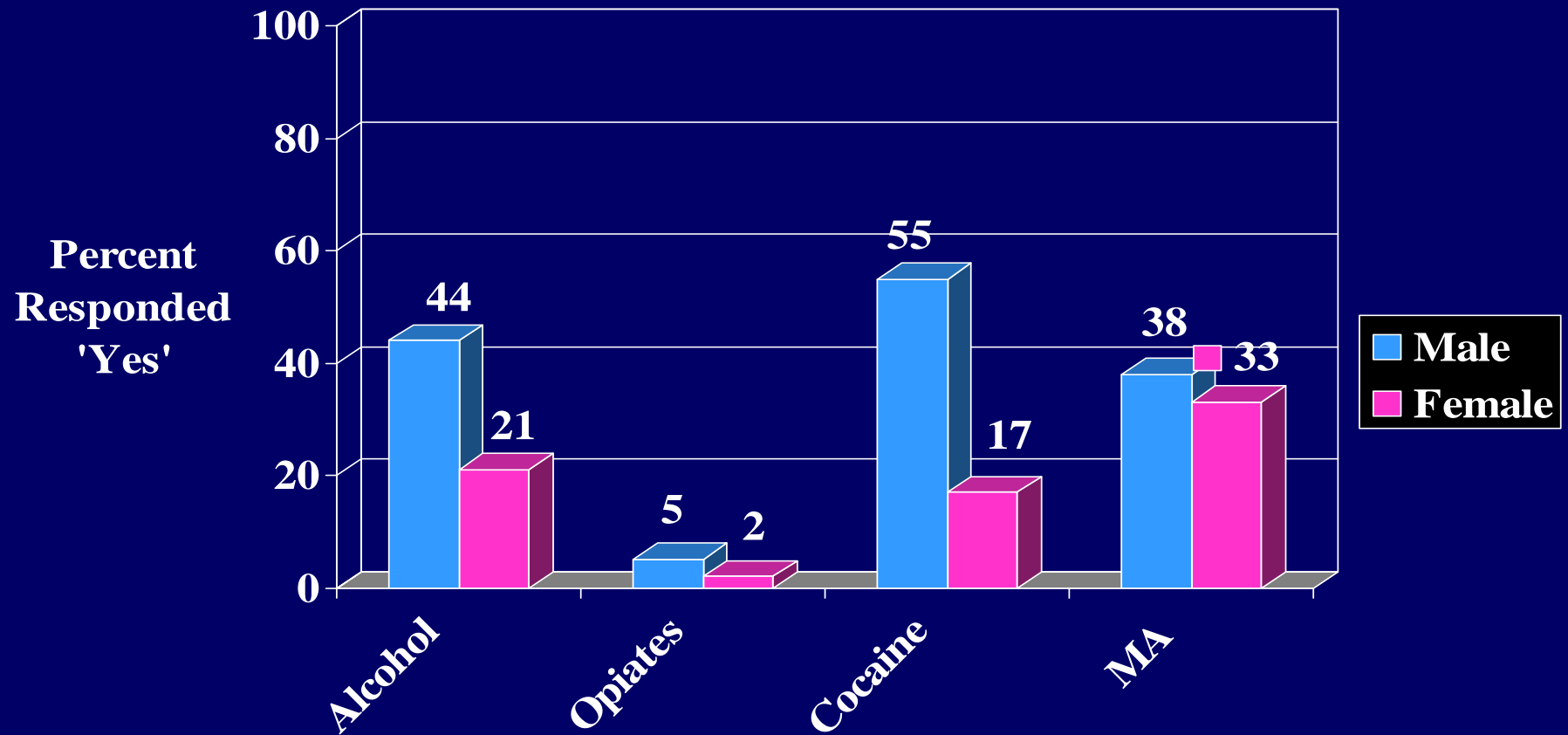
Q9: Use of these substances has reduced my interest in sex and/or made my sex drive abnormally low.



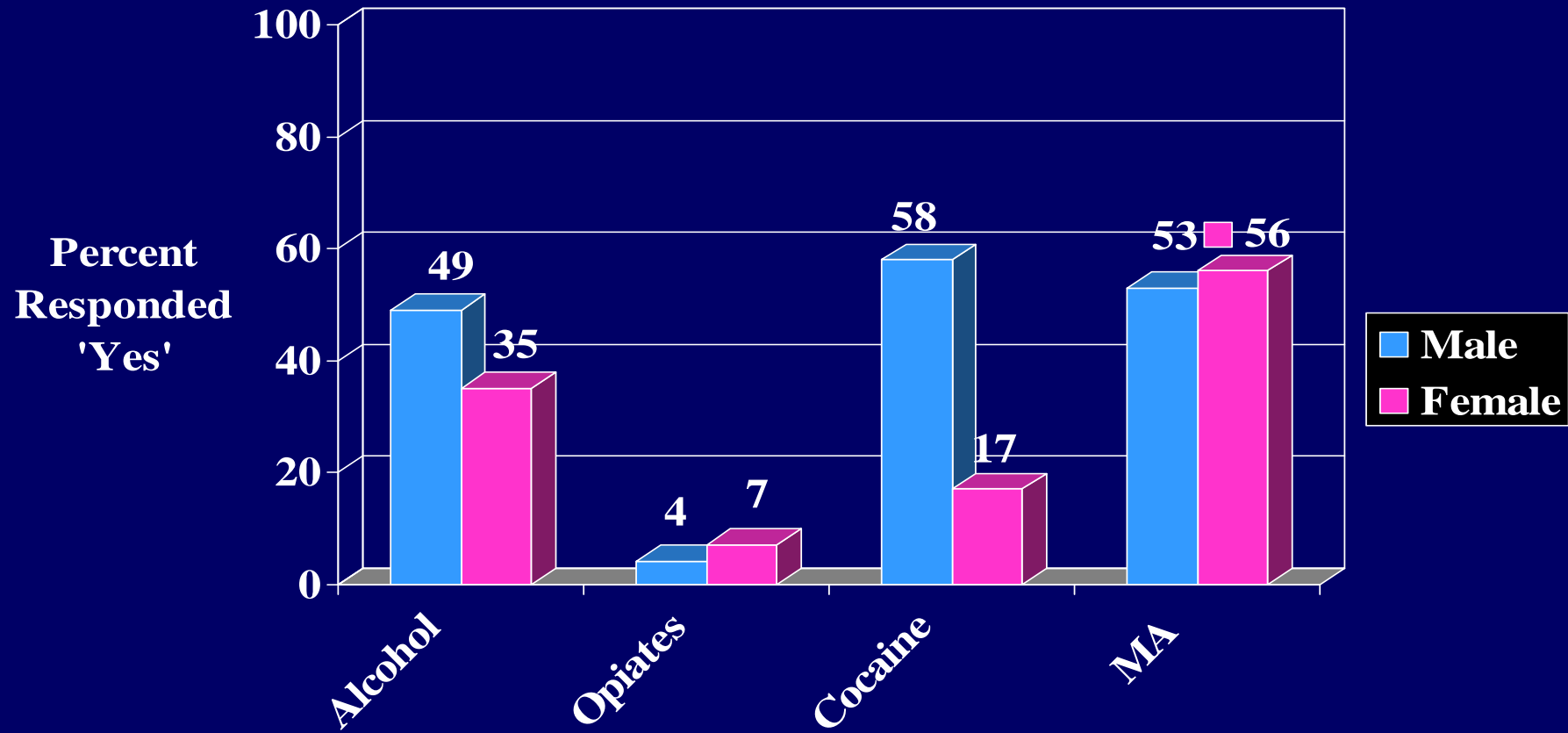
Q10: I am more likely to have sex when using these substances:



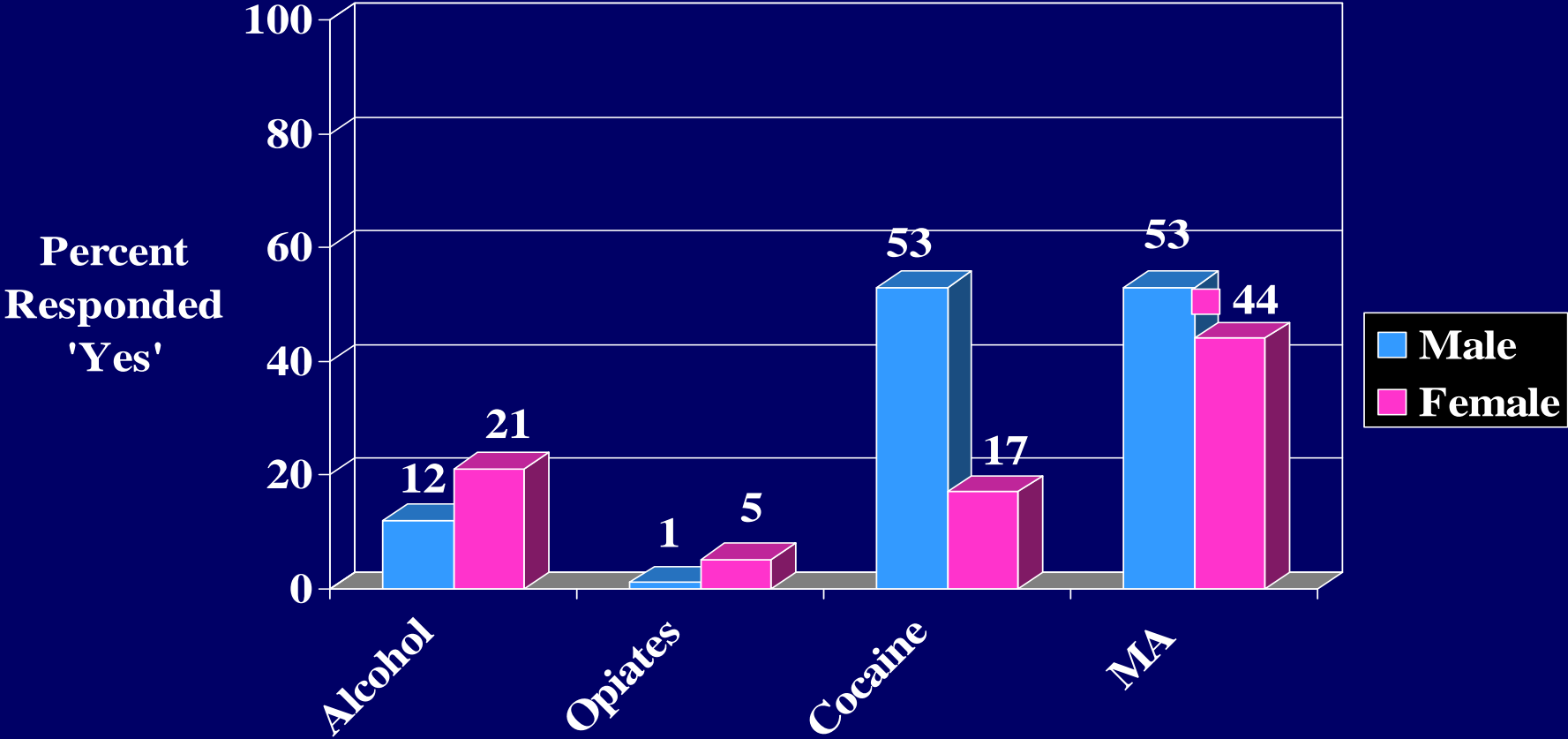
Q11: I am more likely to have sex with an unknown partner or someone other than my primary mate when I am using these substances:



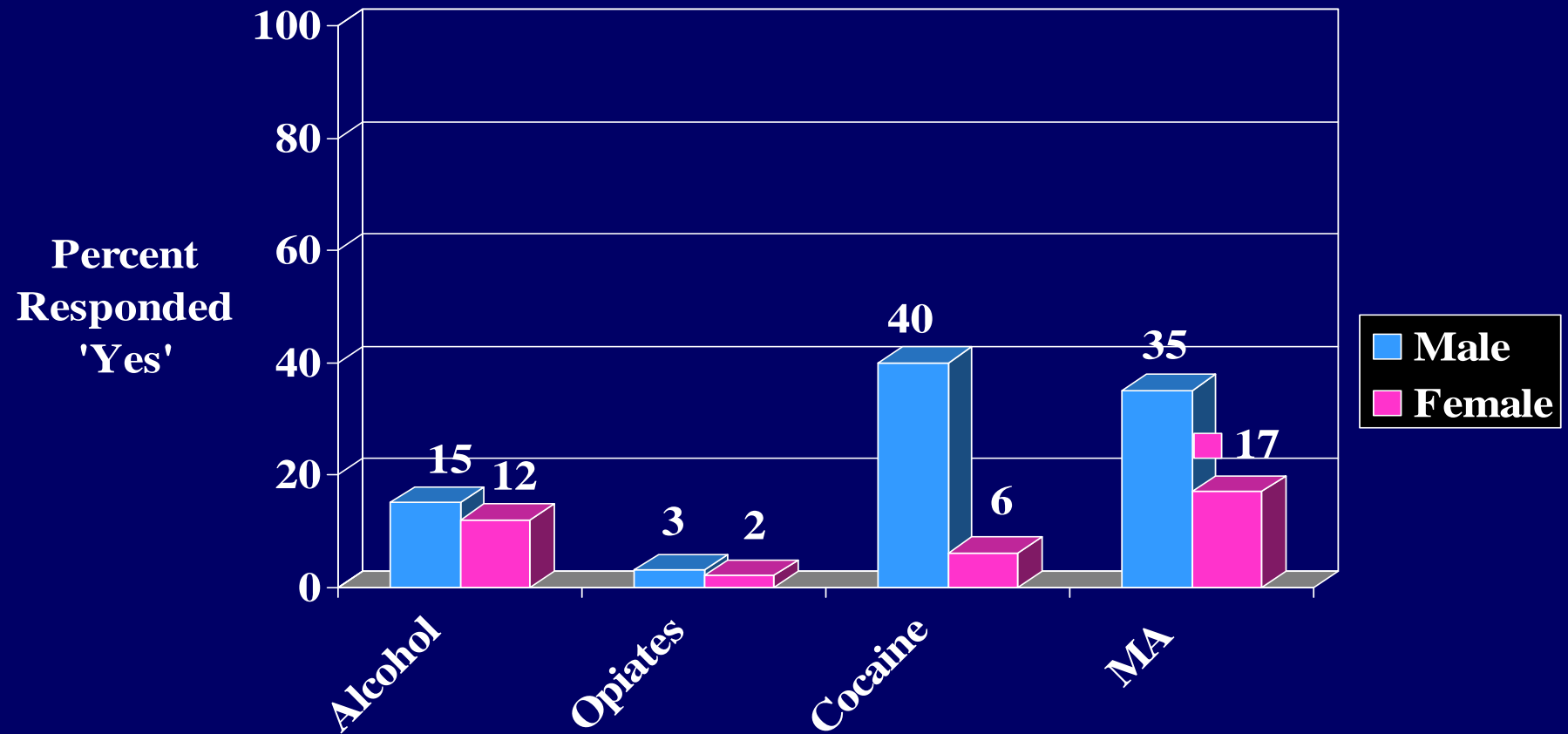
Q12: I am more likely to have “*risky*” sex under the influence of these substances (e.g., not use condoms, be less careful about who I chose as a sex partner, etc.)



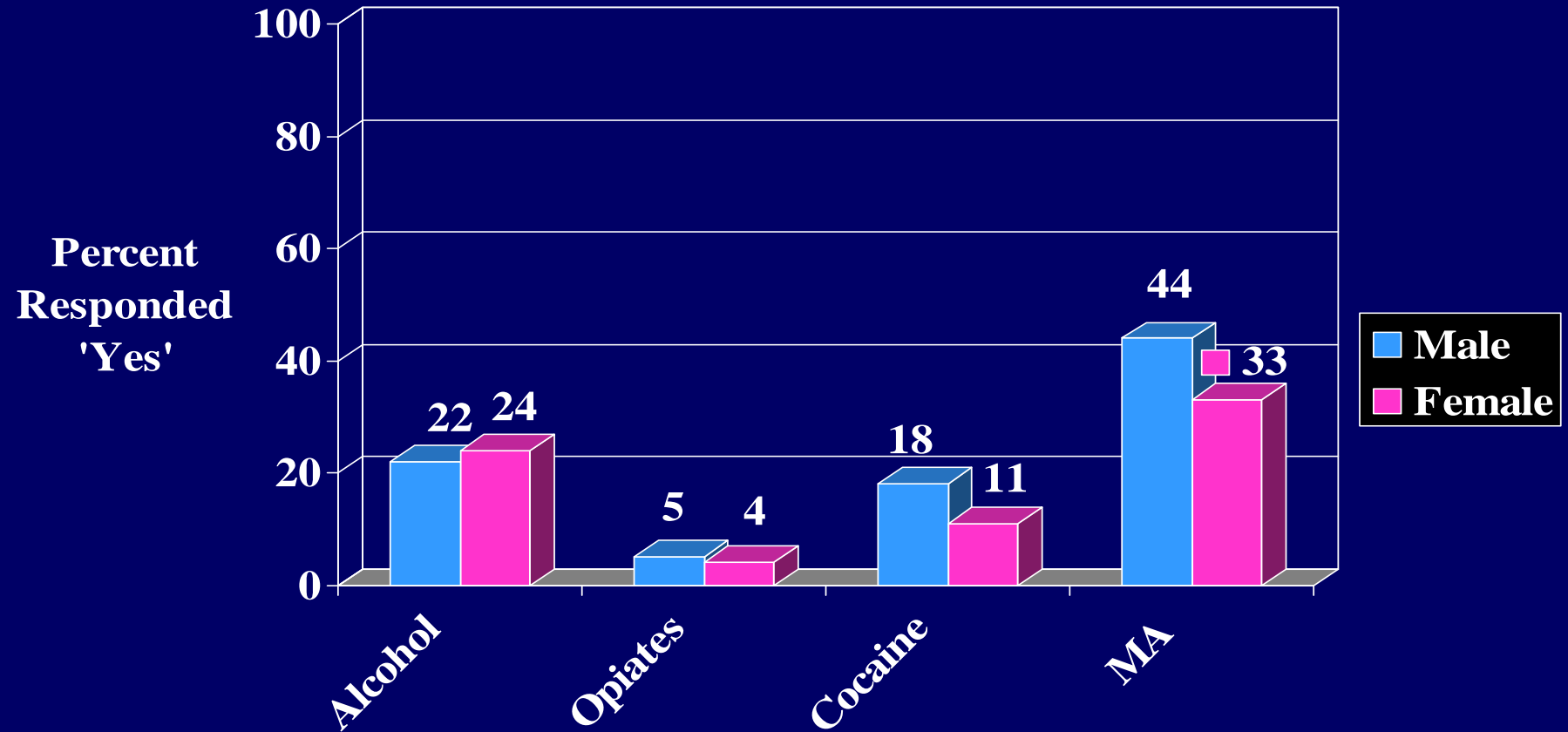
Q13: I have been involved in sex acts that are unusual for me when under the influence of these substances:



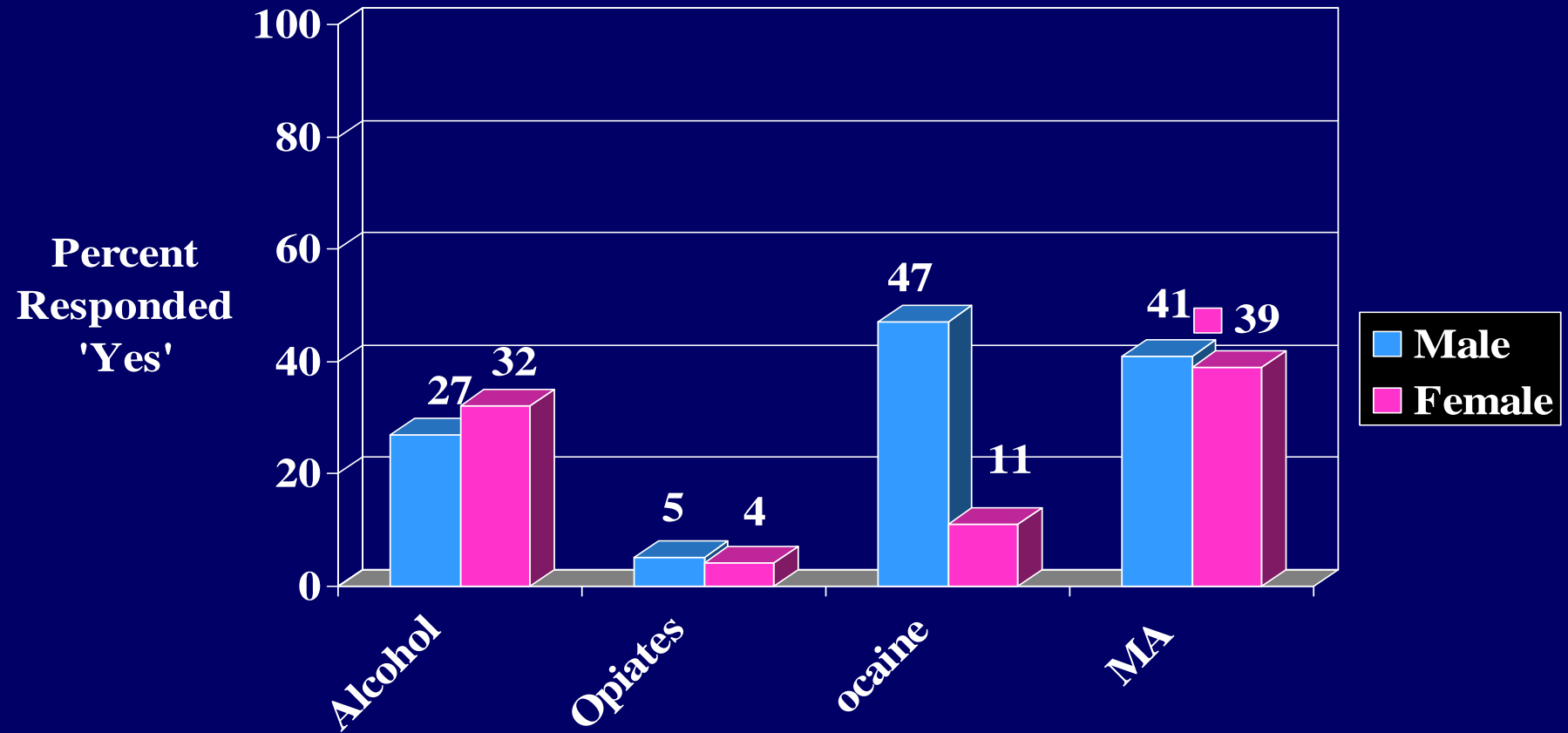
Q14: My use of these substances is so *strongly associated* with sex that I believe it will be difficult for me to separate use of these substances from sex



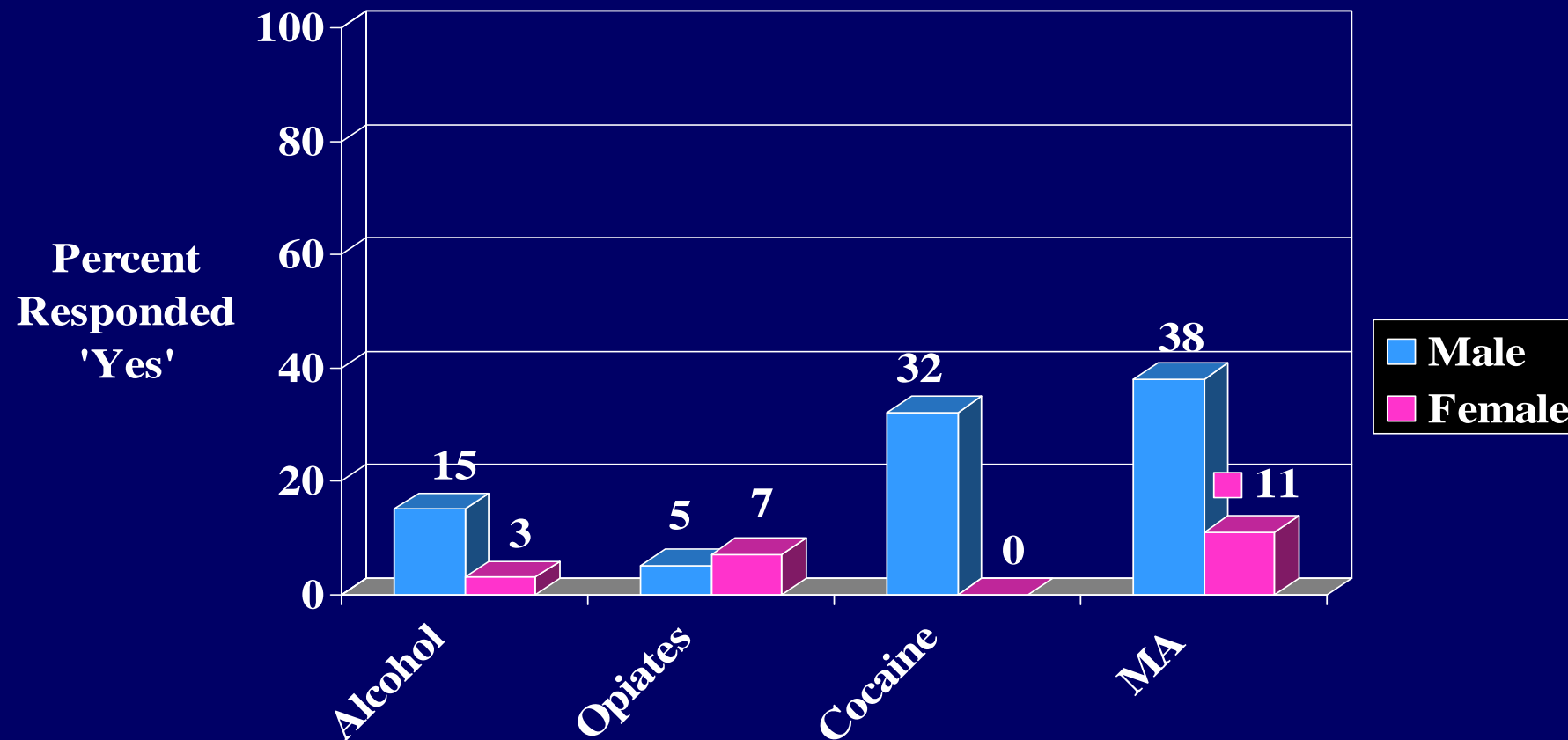
Q15: I am concerned that sex will not be as interesting or pleasurable- maybe even *boring*- without these substances



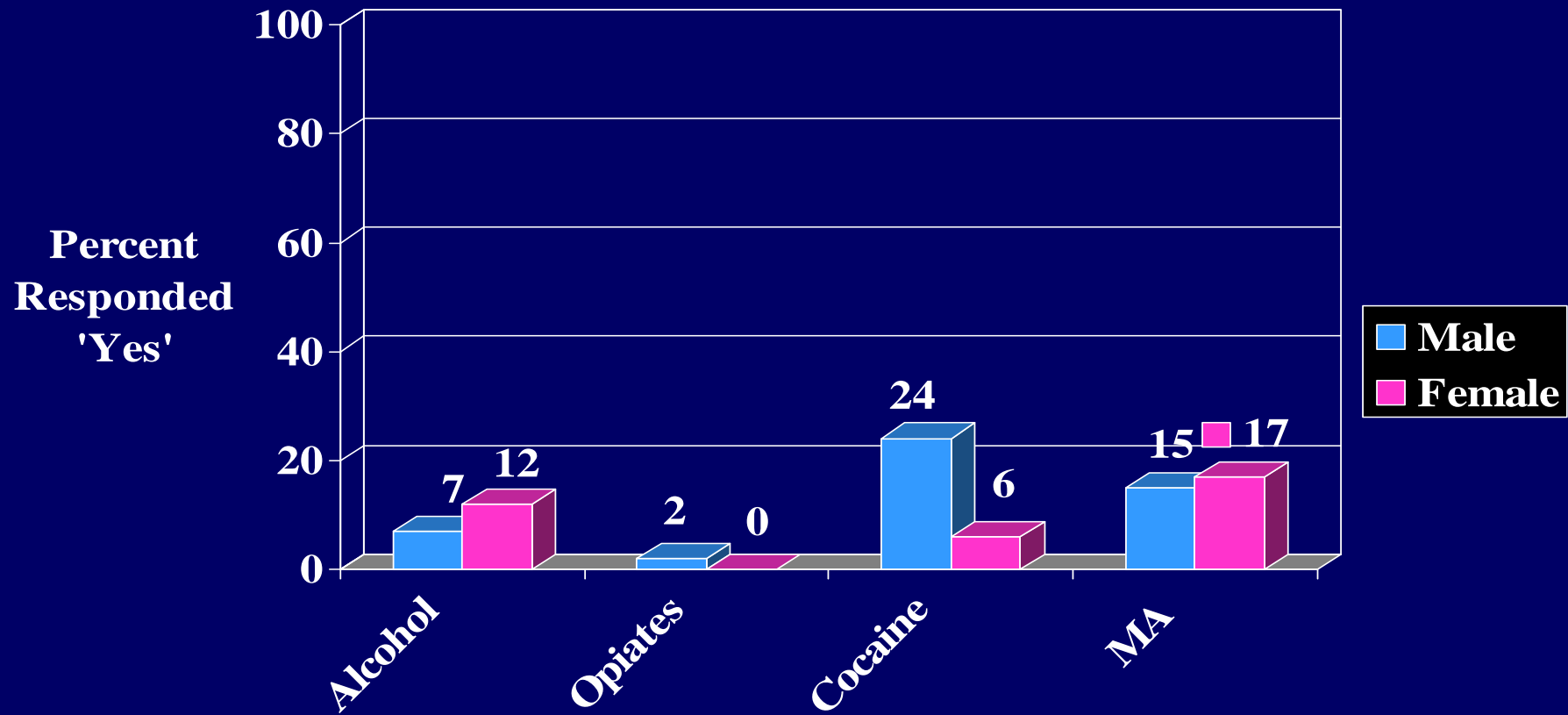
Q16: Sexual *fantasies* or desires have triggered my use of these substances:



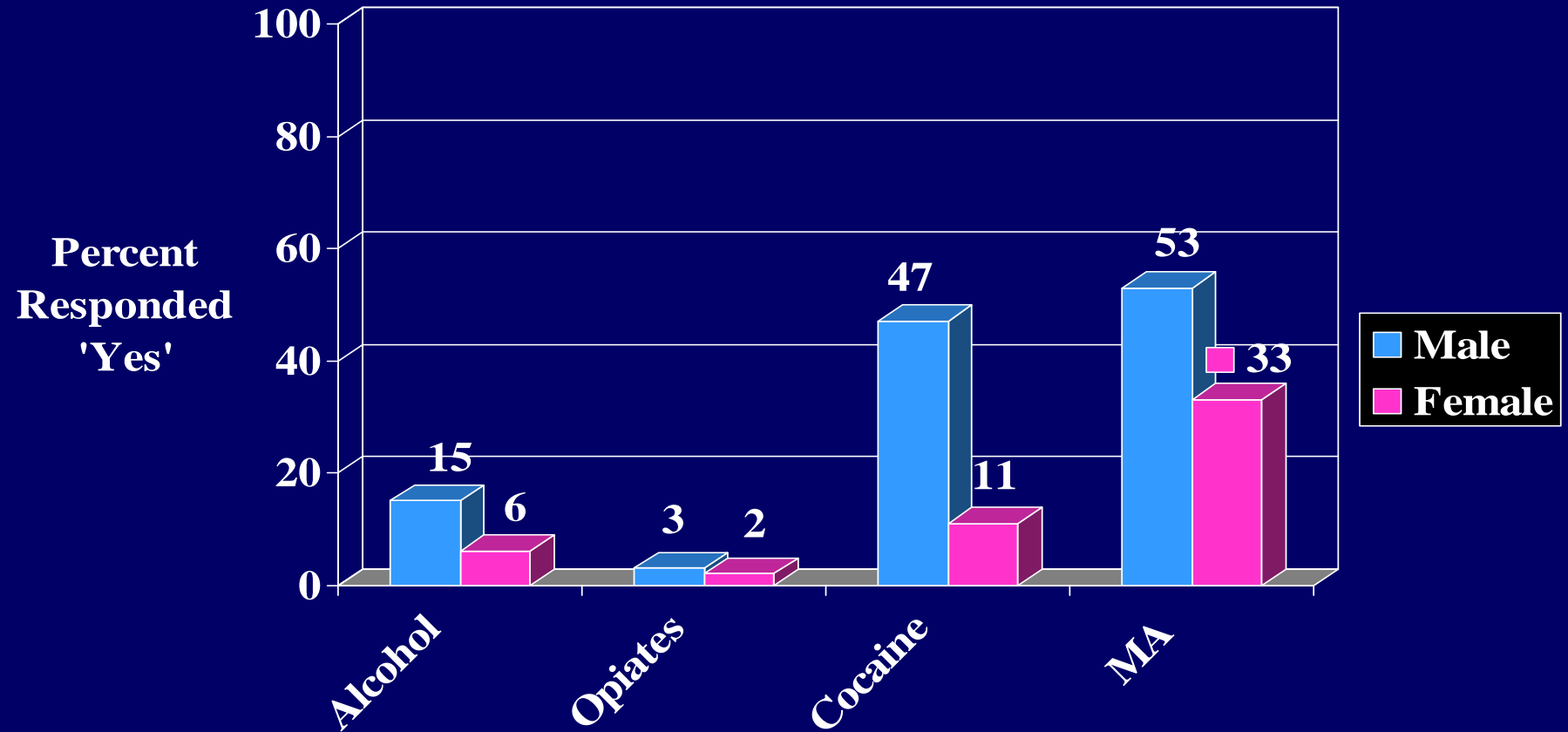
Q17: My sexual fantasies/desires make it more *difficult* for me to stop using these substances:



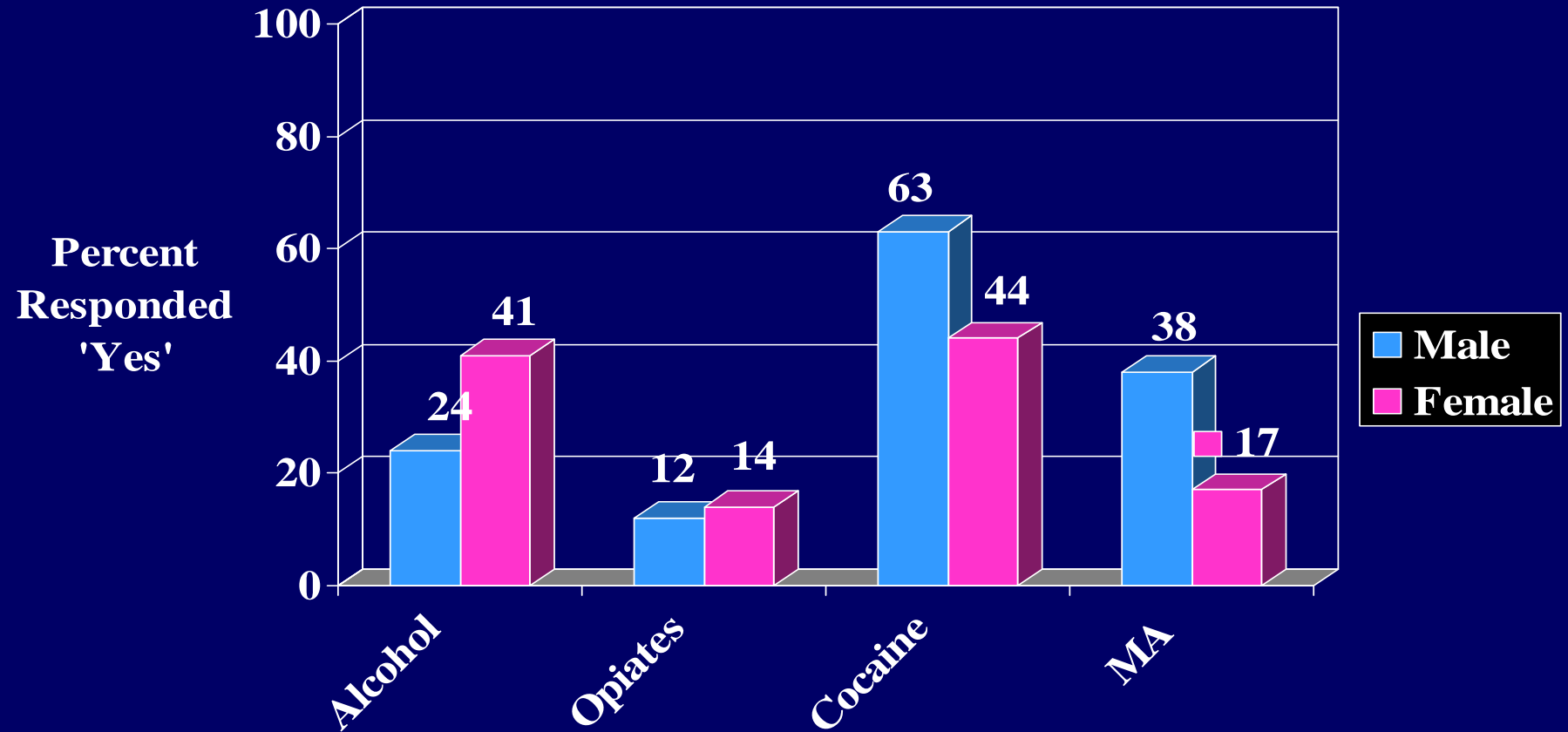
Q18: My sexual behavior under the influences of these substances has caused me to question my *sexual orientation*



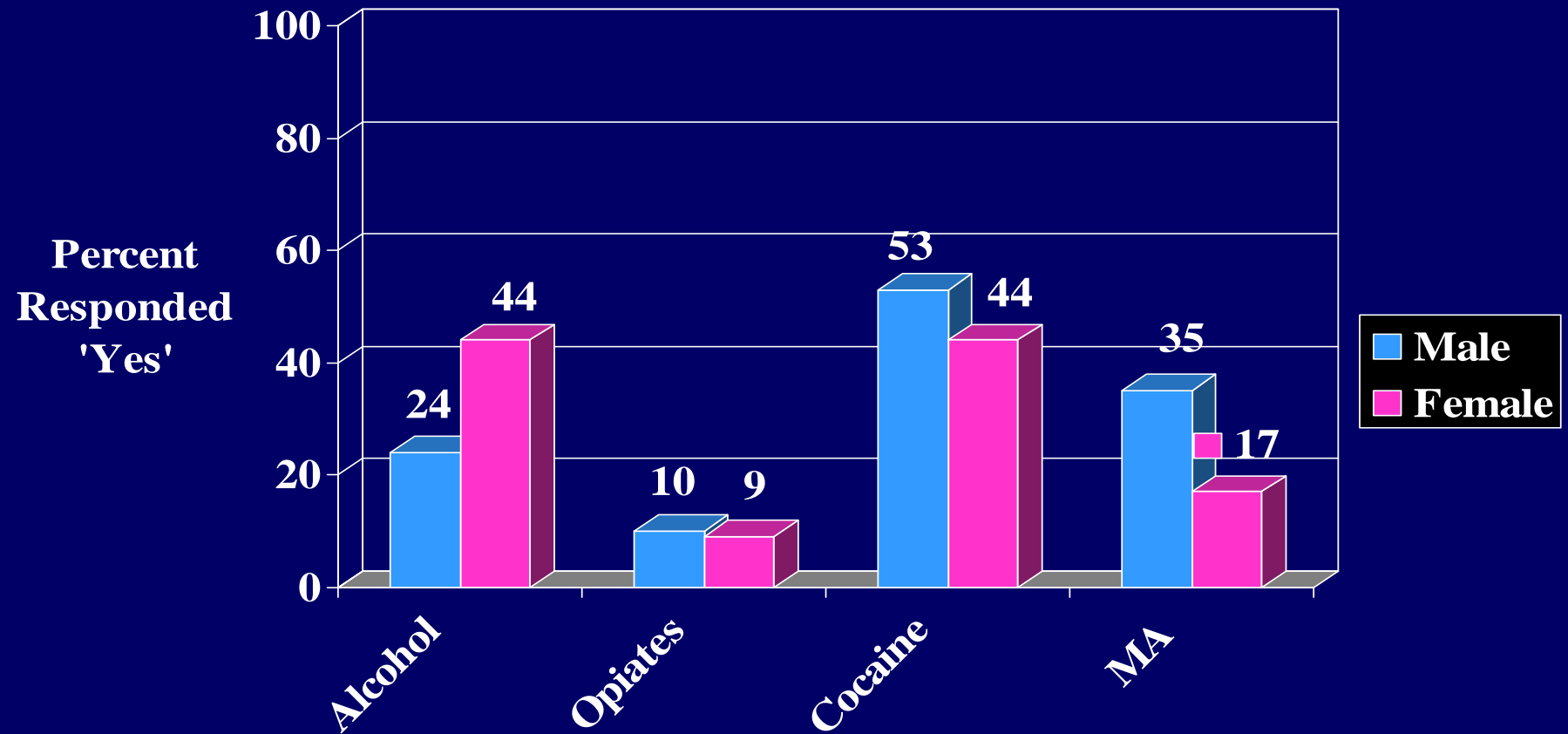
Q19: My sexual behavior under the influence of these substances has caused me to feel sexually *perverted* or *abnormal*



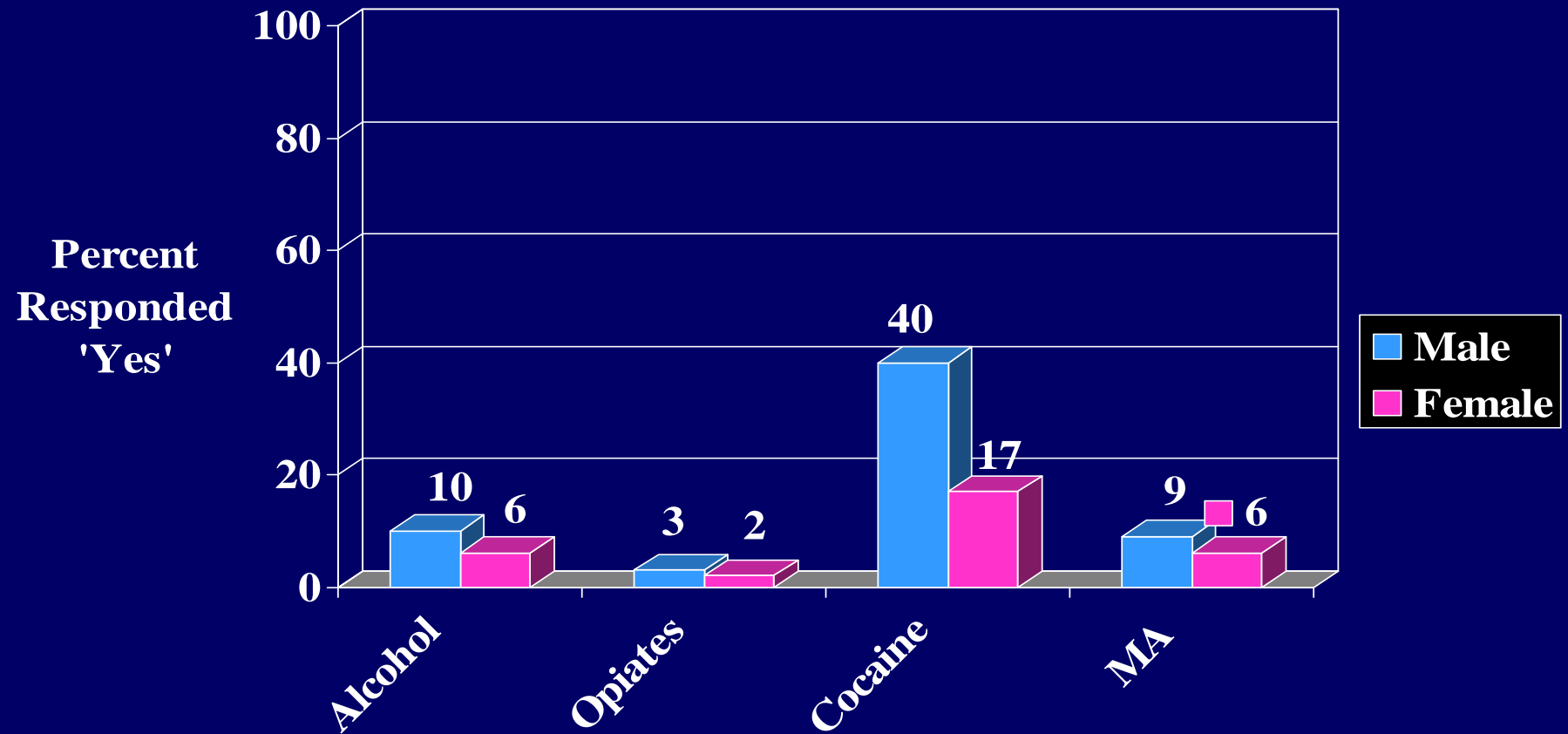
Q20: My sexual behavior under the influence of these substances has resulted in feelings of *depression*



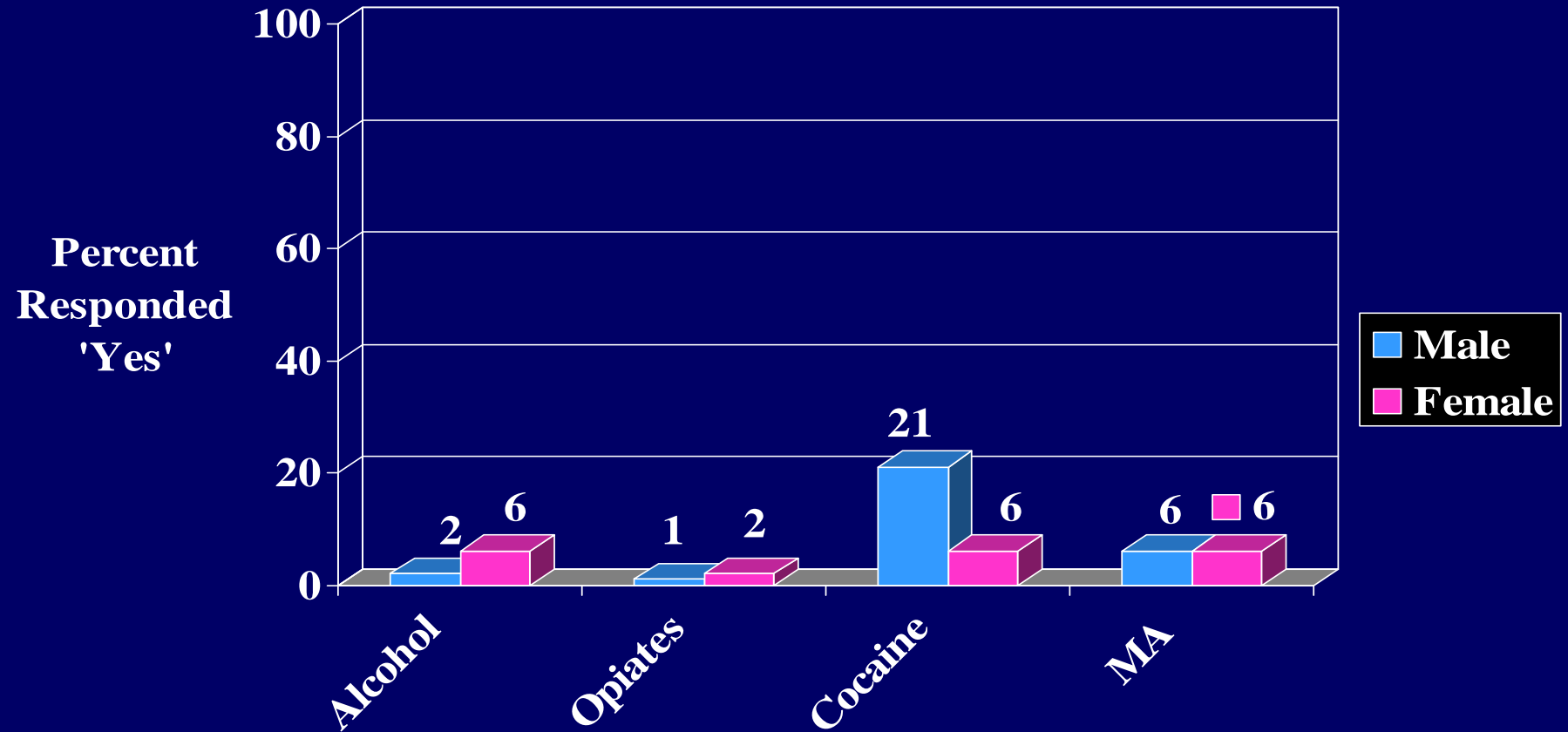
Q21: My sexual behavior under the influence of these substances has resulted in feelings of *shame/guilt*



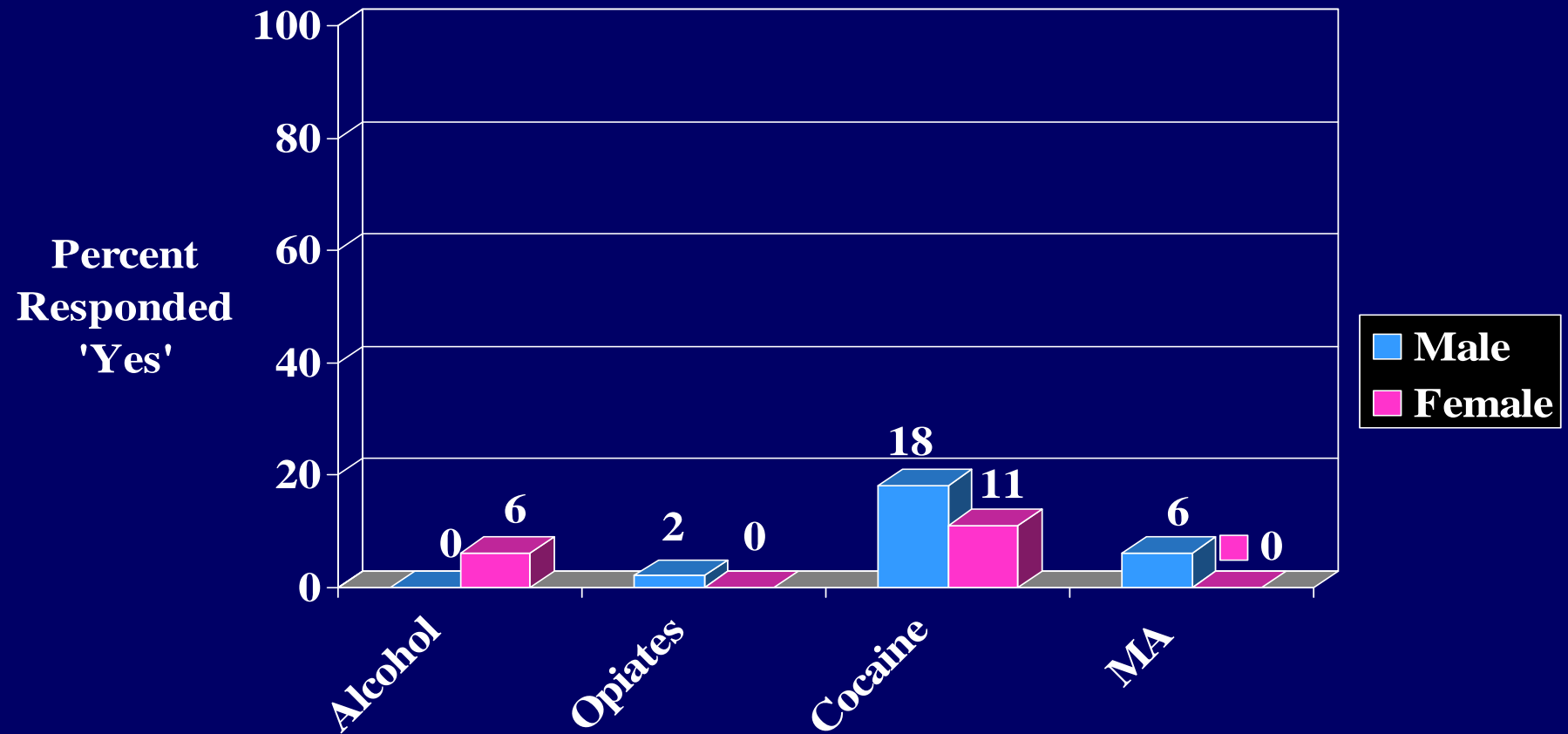
Q22: My sexual behavior under the influence of these substances has caused me to *think about* harming/killing myself



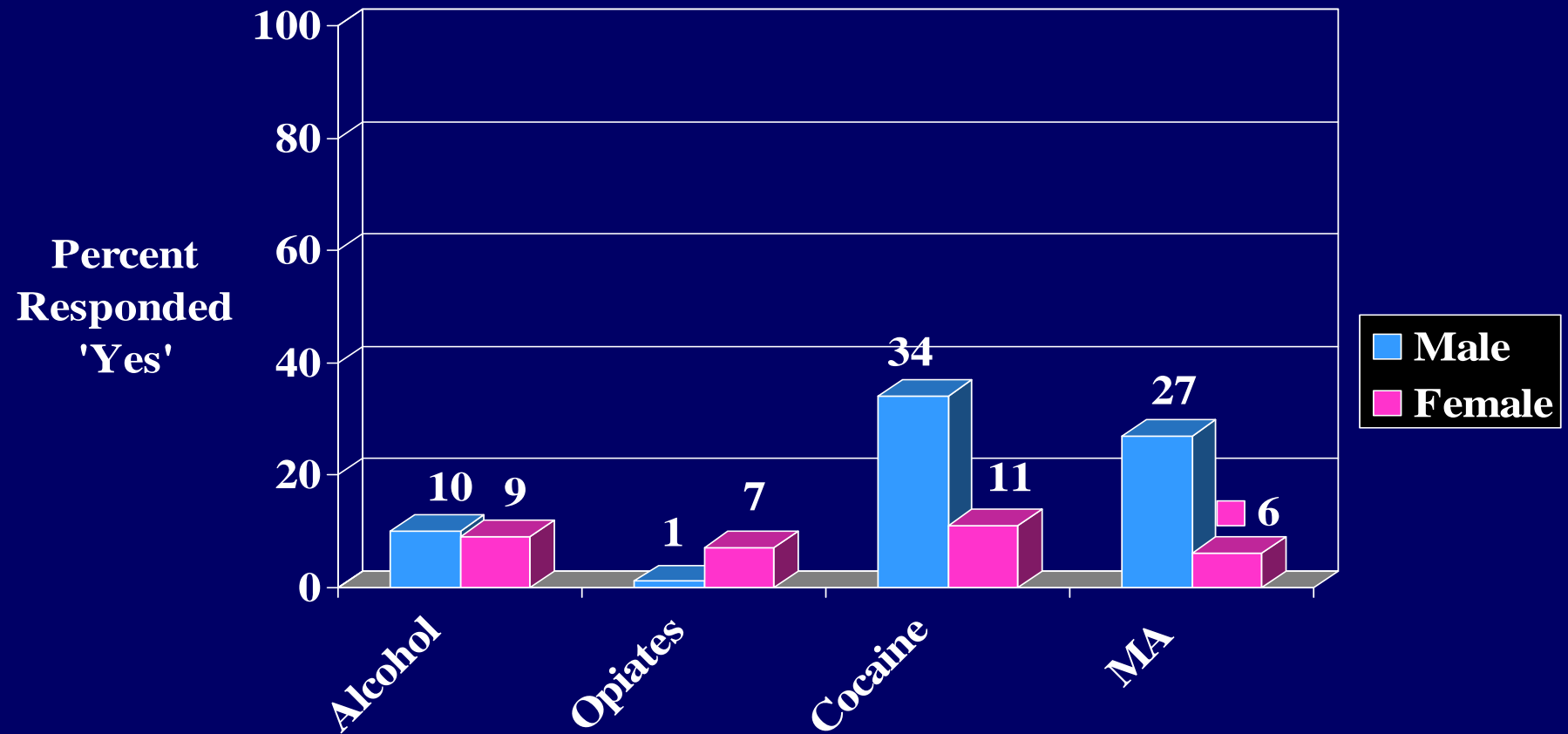
Q23: My sexual behavior under the influence of these substances has caused me to *plan* to harm/kill myself



Q24: My sexual behavior under the influence of these substances has caused me to *attempt* to harm/kill myself



Q25: I believe that I need *treatment* for my sexual behavior as it is linked to the following substances:



Conclusions & Implications

- **Linkage between sex and substance use is strongly influenced by gender and by the specific substance being used**
- **Strongest linkage occurs with stimulants**
- **Weakest linkage occurs with opioids**
- **Overall, men show stronger drug-sex linkages than women**
- **Female methamphetamine users respond to questions about sexuality in male-like ways.**

Conclusions & Implications

- **Stimulants increase sex drive, fantasies, feelings, behaviors, and high-risk behaviors**
- **MA users report much stronger linkages with sex than do cocaine users**
- **Fewer cocaine users report aphrodisiac effects than do MA users**
- **Chronic use of cocaine as compared to MA causes more sexual dysfunction**
- **For women, the alcohol-sex connection is more powerful than for other substances**

COCAINE-SEX CONNECTION

Psychodynamic Issues

- Sex is the person's most important and overriding need (defines his being)
- Intimacy dysfunction- sex split off from intimacy
- Sexually rigid, repressive upbringing
- History of sexual abuse and victimization
- Feelings of sexual inadequacy
- Delayed sexual emergence in adulthood
- Premature/precocious sexual emergence

COCAINE-SEX CONNECTION

Psychodynamic Issues

- **Misogyny, fear of women, women as expendable sex objects not individuals**
- **Homosexual men with intense dysphoria and self-loathing (internalized homophobia) about their sexual orientation**
- **Overtly heterosexual men who act out homosexual fantasies on cocaine often with “Half and Halfs” or “SheMales”- transvestites with breast implants and intact male genitalia**

COCAINE-SEX CONNECTION

Psychodynamic Issues

- **Impaired affect regulation**
- **Fragile sense of self, prone to narcissistic injury**
- **Personality disorders**
 - **Avoidant**
 - **Dependent**
 - **Narcissistic**

COCAINE-SEX CONNECTION

Treatment Issues

- **Establish safety and trust**
- **Offer reassurance: “Many people have this problem and treatment can work”**
- **Instill optimism and hope**
- **Empathize with the patient’s shame, guilt, and humiliation**

COCAINE-SEX CONNECTION

Treatment Issues

- **Clinicians must feel comfortable in discussing sexual behaviors so that a client's problems can be addressed without contributing to internalized feelings of shame and rejection**

COCAINE-SEX CONNECTION

Treatment Issues

- **Identify specific triggers, scenarios, and rituals (ask for details)**
- **Identify specific consequences**
- **Address ambivalence/fears about giving up cocaine and addictive sex**
- **Ask the “Miracle Question”**

COCAINE-SEX CONNECTION

Treatment Issues

- **Address unrealistic hope to stop cocaine, but not sexual acting-out behaviors**
- **Negotiate realistic short-term goals:**
 - **Cessation of cocaine and other substance use**
 - **Sexual abstinence (“cooling off”) period, marked reduction in frequency, or substitution of less harmful or risky sex**

COCAINE-SEX CONNECTION

Treatment Issues

- **Teach mood monitoring and craving control techniques**
- **Schedule frequent (2-3/wk) individual sessions during the early stabilization phase**
- **Group therapy with other cocaine-sex addicts can be extremely helpful**
- **SA, SCA and other 12-step programs**

COCAINE-SEX CONNECTION

Treatment Strategies

- **Assessment (Motivational Interviewing)**
- **Identify chain or sequence of specific drug-related sexual thoughts, feelings, behaviors**
- **Negotiate a treatment plan with specific goals and strategies for change**
- **Group therapy: All male and all female groups**
- **Individual therapy: Preparatory or concurrent**
- **Self-help groups (SA, SCA, SLA??)**
- **Urine monitoring**