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Illicit Drug Use Among Women with Children in the United States: 2002–2003

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PURPOSE: Given research that shows youth exposed to maternal addiction have increased rates of cognitive, socioemotional, and behavioral problems, we examined the prevalence and correlates of past year illicit drug abuse or dependence among women with children younger than 18 years of age in the home to identify maternal risk factors.
METHODS: Data were from the 2002 and 2003 National Survey on Drug Use and Health, a nationally representative sample of the U.S. civilian population. The current analysis utilized a subsample of women ($N = 19{,}300$) who reported having children younger than 18 years in the home. Past year abuse or dependence on cocaine, heroin, marijuana, stimulants, and hallucinogens as well as nonmedical use of prescription medications were assessed.
RESULTS: The prevalence of illicit drug abuse or dependence was 1.9%. Mothers reporting drug abuse or dependence had increased odds of being unmarried, controlling for other demographics. They also were more likely to report stress, poorer health status, and meet the criteria for serious mental illness (SMI).
CONCLUSIONS: Prevention and intervention strategies should focus on developing and testing methods to screen for both risk factors associated with maternal drug abuse and actual substance abuse in primary and emergency care settings to reduce youth exposure and improve child developmental outcomes.
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KEY WORDS: Substance-Related Disorders, Maternal Health Services, Child Health Services.

INTRODUCTION

Exposure to parental substance use, abuse, and dependence is associated with a number of adverse outcomes for children. These include poor emotional regulation and social interaction as toddlers (1) as well as the development of attention deficit-hyperactivity disorder, oppositional defiant disorder, and conduct disorder (2). Other emotional and behavioral problems that have been associated with maternal substance use include anxiety, emotional dependency, peer conflict, and social withdrawal (3). Further, parental drug use is associated with more exposure to violence within and outside the home, which has been shown to contribute to adverse psychological outcomes in adolescence, including higher rates of depression and posttraumatic stress disorder (4, 5). Finally, children of substance users are more likely to use substances themselves (6, 7).

Several factors are associated with substance use, abuse, and dependence, especially among women. Longitudinal research has shown general self-rated health status declines with use of illicit drugs, including cocaine, opiates, and amphetamines, even after controlling for other psychosocial and biological covariates (8). In addition, stress is a strong predictor of substance use, which has been associated with both activation (9) and abnormal functioning (10) of the hypothalamic-pituitary-adrenal axis. Further, the stress caused by long-term involvement in a drug-using lifestyle contributes to continued drug use and dependence (11). Psychiatric comorbidity is also common in individuals with substance use disorders (12), and individuals with mental and substance use comorbidities are less likely to receive mental health treatment (13). Interpersonal violence (IPV) and substance use are highly correlated. Research demonstrates women who use drugs or drink alcohol are more likely to be battered and injured (14). Likewise, women who experience IPV are more likely to be frequent substance users and have a greater number of substance disorder symptoms than women who do not experience IPV (15). Finally, previous research has demonstrated a link between receipt of welfare benefits and increased risk of illicit drug use (16, 17). Literature suggests Medicaid policies make it difficult for clients to obtain substance abuse treatment services (18), and data reveal privately insured patients have double the odds of entering chemical dependency treatment than Medicaid-insured patients (19).

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Selected Abbreviations and Acronyms

ACASI = audio computer-assisted self-interviewing
AOR = adjusted odds ratio
CAPI = computer-assisted personal interviewing
DSM-IV = *Diagnostic and Statistics Manual of Mental Disorders, 4th Edition*
IPV = interpersonal violence
MLR = multiple logistic regression
MSA = metropolitan statistical area
NSDUH = National Survey on Drug Use and Health
SMI = serious mental illness

Given that women are more often primary caretakers of children, and given the negative effects of maternal substance use on child and adolescent outcomes, the overall aim of this study was to use a nationally representative sample to determine the prevalence and correlates of illicit substance use among mothers with children younger than 18 years of age in the home. This research is important in helping public health professionals and primary care practitioners to identify children in families who may be at risk for exposure to the deleterious effects of maternal substance use, so both children and their caregivers might receive appropriate intervention.

SUBJECTS AND METHODS

We analyzed data from the 2002 and 2003 National Survey on Drug Use and Health (NSDUH) (20, 21). The NSDUH is a nationally representative, epidemiologic survey that serves as the primary source of information on the prevalence of illicit drug, alcohol, and tobacco use in the United States. Annually data are collected from approximately 70,000 individuals 12 years of age and older within the non-institutionalized, civilian population. The NSDUH utilizes an independent, multistage area probability sampling method for each state and the District of Columbia. Data are collected in person using a combination of computer-assisted personal interviewing (CAPI) and audio computer-assisted self-interviewing (ACASI), the latter of which provides a confidential means of participating, thereby minimizing reporting bias (20, 21). The response rates exceeded 75% for 2002 and 2003 (79% and 77%, respectively). The total sample size for the 2002–2003 NSDUH was 109,309; however, for the current analysis, respondents only included women with children under age 18 living in the home ($N = 19{,}300$).

Dependent Variable

The purpose of this study was to examine the prevalence and correlates of illicit substance use among women with children living in the home. Thus the dependent variable of interest was past year abuse of or dependence on any illicit substance, including cocaine, heroin, marijuana, and hallucinogens, as well as non-medical abuse/dependence for prescription medications. Abuse and dependence were assessed in the NSDUH using criteria from the *Diagnostic and Statistical Manual of Mental Disorders*, version IV (DSM-IV) (22). This dichotomous variable was created from all substance use variables and categorized respondents with illicit substance abuse or dependence (1) or no illicit substance abuse or dependence (0).

Independent Variables

We measured seven demographic variables, including (a) age, defined by four categories (18–25, 26–34, 35–49, and 50 years or older); (b) race/ethnicity (white, African American, Hispanic, and other race/ethnicity); (c) education, defined by three categories (less than 12 years, 12 years, and more than 12 years); (d) marital status, defined by four categories (married, widowed, divorced, and never married); (e) income in four categories (<$20,000, $20,000–49,999, $50,000–74,999, and >$75,000); (f) employment status, defined by four categories (full-time, part-time, unemployed, and other); and (g) population density, in three categories (metropolitan statistical area [MSA] > 1 million people, MSA < 1 million people, non-MSA).

In addition to demographic variables, we examined six possible covariates of maternal substance abuse or dependence based on previous literature. These include: maternal physical health status, maternal stress in the past year, serious mental illness (SMI), interpersonal violence, receipt of public/governmental benefits, and health insurance status.

In the NSDUH, self-rated health status was measured by a single question asking respondents to rate their current health from excellent (1) to poor (5). A single question of self-rated health status has been shown to be a reliable indicator of overall health status in numerous studies (23–25). Maternal stress in the past year was measured by responses to questions asking participants whether they experienced reactions to any extremely stressful event, such as upsetting memories, emotional distance from others, difficulties sleeping or concentrating, and feeling jumpy or easily startled. The NSDUH measures SMI by a variable that summed the scores (0 = none of the time to 4 = all of the time) on responses to six variables measuring how frequently respondents experienced psychological distress during the one month in the last year when they felt their worst emotionally. Respondents were coded as having SMI (1) if they scored greater than 12 (20, 21). IPV was measured according to responses on two variables: how many times the respondent reported hitting or threatening to hit her partner, and how many times the respondent reported that her partner hit or threatened to hit her. A response greater than 0 to either of these questions was coded as experiencing relationship violence (IPV = 1); a response of 0 was