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Pregnancy and Drinking among Women Offenders under Community Supervision in the United States: 2004–2008

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ABSTRACT *Drinking during pregnancy raises risks of pregnancy, labor, and delivery complications in mothers and lasting neurological or behavioral consequences in babies. This public health issue has recently attracted the attention of criminal justice (CJ) researchers, as the prevalence of Fetal Alcohol Spectrum Disorders (FASDs) appears to be unusually high among offender populations. Nevertheless, in addition to becoming a main caretaker of individuals with FASDs, the CJ system already may have under its care some of the women at the highest risk of drinking during pregnancy. This study sets out to determine the prevalence, patterns, and correlates of alcohol consumption among women offenders on probation or parole in the United States. Analysis of data collected from seven waves of the National Survey on Drug Use and Health (2004–2008) were performed on women who were under community supervision during the year prior to the survey interview. Results revealed that 1.9% of women of child-bearing ages of 12–44 years in the general population were pregnant, as compared to 4.7% of comparable women under community supervision. Pregnant offenders were more likely to come from minority groups and be socially disadvantaged than their non-CJ-involved counterparts. Alarmingly, they were nearly three times as likely to have engaged in problem drinking (e.g., two drinks a day for a month) than non-CJ-involved women. Negative behavioral consequences resulting from alcohol consumption and concurrent use of other substances were also significantly more pervasive among drinkers under community supervision. Effective prevention and control of the problem requires rethinking the role of corrections systems in health promotion. Concrete recommendations are discussed.*

KEYWORDS *Pregnancy, Drinking, Criminal offenders, Probation, Parole*

INTRODUCTION

It is time for the issue of alcohol consumption among pregnant offenders to take a new and higher profile. Given the current concern over the unusually high prevalence of Fetal Alcohol Spectrum Disorders (FASDs) within the correctional population,[1,2] it becomes crucial to explore whether drinking problems are disproportionately represented among pregnant women under criminal justice (CJ) supervision in the first place. Answers to this question will contribute to a more effective harm reduction to women offenders and their children and a better

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understanding of the prenatal facilitators for the transmission of anti-social tendencies across generations. Alcohol consumption during pregnancy often leads to miscarriage, preterm deliveries, and stillbirth; it has also been established that lifelong FASD features in the children—such as deficient impulse control, inability to comprehend consequences of behavior, poor short-term memory, anger management deficits, and poor judgment—increase the likelihood of developing criminal behaviors.[3]

While pregnant offenders within prison walls have less access to alcohol because of the highly monitored and controlled setting, pregnant offenders serving community sentences are at a much higher risk of using or abusing alcohol during their pregnancy. Women serving community sentences include probationers and parolees. According to the Bureau of Justice Statistics, more than 1.1 million women offenders were under community supervision in 2008.[4] One million female probationers served community sentence as an alternative to incarceration, and nearly 100,000 female inmates were conditionally released from prison or jail on parole supervision. The extent to which supervised women offenders drink alcohol during pregnancy will have important public health and criminal justice policy implications for prevention and interventions.

Using a comparative approach to contrast the experiences of non-criminal justice-involved women ("non-CJ women" hereafter) with those of supervised women offenders in the community, this study addresses four specific research questions: (1) What is the prevalence of pregnancy among supervised women offenders? (2) What are the background characteristics of pregnant offenders under community supervision? (3) What are the history and patterns of their alcohol use? (4) What are the behavioral, social, and health consequences of their alcohol use?

METHODS

Data and Sample

To compare the demographic characteristics and substance-use patterns of those under community supervision to the general population, data from the National Survey on Drug Use and Health (NSDUH), 2002–2008, were analyzed.[5] This survey sponsored by the Substance Abuse and Mental Health Services Administration provides epidemiological data on the use and abuse of tobacco, alcohol, and other drugs among members of the non-institutionalized civilian population aged 12 or older in the United States. The survey captures prevalence estimates of drug use that would not ordinarily come to the attention of administrative, medical, or correctional authorities. Each NSDUH respondent since 2002 has been given an incentive payment of $30. This change resulted in an improvement in the survey response rate. In addition, since 2002 new population data from the 2000 decennial census became available for use in NSDUH sample weighting procedures.

Women offenders under community supervision were defined as female respondents who self-reported being on probation, parole, supervised release, or any other conditional release from prison or jail at any time during the 12 months prior to the interview. Therefore, rather than just comprising women currently under community supervision, this group includes female offenders who were either currently or recently under supervision. The final sample encompassed 201,112 women who completed NSDUH interviews between 2004 and 2008. Of these, 6,499 were pregnant at the time of the interview and 4,806 had been on community supervision

during the year prior to the interview. The number of pregnant supervised offenders was 320. The data were weighted to reflect the U.S. population by the variable ANALWT_C for the calculation of national estimates of prevalence of pregnancy, whereas unweighted data were used in the analysis of background characteristics and history, patterns, and consequences of alcohol use to yield meaningful significance tests.

Limitations

There are two important limitations to this set of data. First, NSDUH is a self-report study. Given the social stigma associated with substance use and criminal justice involvement, the validity of related items of a sensitive nature may be an issue. To address this problem, NSDUH has adopted several measures to improve validity. Respondents were surveyed in the privacy of their own homes, and a combination of techniques was used to collect the data: both computer-assisted personal interviewing conducted by an interviewer, and audio computer-assisted self-interviewing. These techniques provided respondents with a highly private and confidential means of responding to questions as a strategy to improve self reporting of illicit drug use and other sensitive behaviors. Second, there may be an issue with response bias, as in every wave of data collection about 25% of those asked to participate did not complete the full survey.

RESULTS

Prevalence of Pregnancy

Table 1 presents the comparison of pregnancy rates among women between the ages of 12 and 44. The pregnancy rate among supervised women offenders fluctuated between 3.6% and 5.5% between 2002 and 2008, with an arithmetic average rate of 4.7% for the period. In contrast, the pregnancy rate among non-CJ women barely changed over the years and averaged 1.9% for the 7-year period. Thus, supervised women offenders were statistically significantly more than twice as likely to become pregnant as their non-CJ counterparts. This difference in pregnancy rate could be partly explained by the greater likelihood of criminally active women to be in their fertile years.[6]

Background Characteristics of Pregnant Women

Background differences between pregnant non-CJ women and pregnant women offenders under community supervision reflected sociodemographic differences consistently found between criminal and non-criminal populations.[7] As shown in Table 2, pregnant women offenders tended to be between 12 and 17 years of age (27.2% vs. 7.2%) and disproportionately Black (20.9% vs. 15.6%), Hispanic (22.5% vs. 20.3%), or Native American (6.9% vs. 2.3%); to come from families with very low annual income of less than $20,000 per year (51.6% vs. 31.8%); to be unemployed during their pregnancy (70.9% vs. 45.5%); to be adults without a high school diploma (32.8% vs. 21.9%); to be single and never married (77.7% vs. 45.8%); to not have other minor children (36.3% vs. 56.1%); and to lack any public or private coverage of health insurance (19.7% vs. 12.4%). A staggering 82.7% of the pregnancies by supervised women offenders fell into the out-of-wedlock category, and severe socioeconomic disadvantages surrounded these high-risk pregnancies. It comes as no surprise that only 51.6% of pregnant women

TABLE 1 Pregnancy status of women aged 12–44 years: 2002–2008

	General women population	Supervised female offenders
Year	*N* (%)	*N* (%)
2002	2,296,113 (1.9%)	82,300 (4.4%)
2003	2,332,905 (1.9%)	83,929 (5.1%)
2004	2,462,909 (1.9%)	86,514 (5.5%)
2005	2,339,241 (1.9%)	84,135 (5.4%)
2006	2,400,403 (1.9%)	71,955 (4.4%)
2007	2,469,266 (2.0%)	93,683 (4.9%)
2008	2,506,215 (2.0%)	68,186 (3.6%)
Average: 2002–2008	2,401,007 (1.9%)	81,529 (4.7%)

Data: weighted data from the National Survey on Drug Use and Health, 2002–2008

offenders reported that their health status was excellent or very good, as compared to the rate of 68.6% among pregnant non-CJ women.

It is also important to highlight that while one-third (33.8%) of non-CJ pregnancies were in their third trimester, only one-fourth (25.2%) of the pregnancies by supervised women offenders were in their last trimester. This finding suggests that supervised women offenders encountered more risks and complications during their pregnancies and were less likely to reach or complete the last trimester of their pregnancies.

History and Patterns of Alcohol Use among Pregnant Women

Table 3 presents differences in drinking behaviors among pregnant women. On average, supervised pregnant offenders began their alcohol use in early adolescence (14.5 years), and pregnant non-CJ women first consumed alcohol in their middle adolescence (16.2 years). Pregnant supervised women offenders were more likely than pregnant non-CJ women to have used alcohol in the past year (66.6% vs. 59.4%), and the frequency of use as measured in days of alcohol consumption was 50% higher among pregnant supervised women who drank (74.9 vs. 49.6 days). Similar differences in past-month prevalence and frequency of alcohol use were reported (21.2% vs. 10.1%).

According to the guidelines published by the National Institute on Alcohol Abuse and Alcoholism, a woman engages in problem or risk drinking when she consumes two or more drinks per day.[8] Our analysis uncovered that the percentage of pregnant women having two or more drinks per day over the past 30 days was nearly three times higher among women under community supervision than among women in the rest of the general population (14.4% vs. 5.3%).

The current prevalence of other substance use among pregnant supervised women offenders was also alarming. They were more than twice as likely as their non-CJ counterparts to have smoked cigarettes in the past month (44.1% vs. 21.8%) and nearly four times as likely to have used illicit drugs, including marijuana, hallucinogens, heroin, cocaine/crack, inhalants, and non-medical use of prescription psychotherapeutics (23.4% vs. 6.0%). These substance uses have been linked to fetal brain damage and pulmonary diseases, as well as preterm deliveries, in extant research literature.[9–11]

TABLE 2 Background characteristics of pregnant women (*N* = 6,499)

	Non-CJ pregnant women (*N* = 6,179)	Pregnant female offenders (*N* = 320)
	N (%)	*N* (%)
Age		
12–17 years	446 (7.2%)***	87 (27.2%)***
18–25 years	4,083 (66.1%)***	206 (64.4%)***
26–34 years	1,340 (21.7%)***	20 (6.2%)***
35 or older	310 (5.0%)***	7 (2.2%)***
Race and ethnicity		
Asian	162 (2.6%)***	4 (1.2%)***
Black	961 (15.6%)***	67 (20.9%)***
Hispanic	1,256 (20.3%)***	72 (22.5%)***
Native American/ Pacific Islander	142 (2.3%)***	22 (6.9%)***
White	3,482 (56.4%)***	146 (45.6%)***
Other	127 (2.8%)***	7 (3.1%)***
Total family income		
Less than $20,000	1,967 (31.8%)***	165 (51.6%)***
$20,000–$49,999	2,522 (40.8%)***	106 (33.1%)***
$50,000–$74,999	906 (14.7%)***	28 (8.8%)***
$75,000 or more	784 (12.7%)***	21 (6.6%)***
Employment status		
Unemployed	2,812 (45.5%)***	227 (70.9%)***
Employed full-time or part-time	3,367 (54.5%)***	93 (29.1%)***
Educational achievement		
12–17 years old	446 (7.2%)***	87 (27.2%)***
Less than high school	1,355 (21.9%)***	105 (32.8%)***
High school graduate	1,970 (31.9%)***	87 (27.2%)***
Some college	1,448 (23.4%)***	36 (11.2%)***
College graduate	960 (15.5%)***	5 (1.6%)***
Marital status		
Married	2,974 (48.5%)***	52 (17.3%)***
Widowed	11 (0.2%)***	2 (0.7%)***
Divorced or separated	342 (5.6%)***	13 (4.3%)***
Never been married	2,810 (45.8%)***	234 (77.7%)***
Had minor children in the household	3,155 (51.1%)***	115 (36.3%)***
Health insurance		
Not covered by any health insurance	765 (12.4%)**	63 (19.7%)**
Covered by some health insurance	5,414 (87.6%)**	257 (80.3%)**
Self-perceived health status		
Excellent	1,347 (30.2%)***	45 (20.2%)***
Very good	1,716 (38.4%)***	70 (31.4%)***
Good	1,133 (25.4%)***	87 (39.0%)***
Fair/poor	268 (6.0%)***	21 (9.4%)***
Current trimester of pregnancy		

TABLE 2 ***Continued***

	Non-CJ pregnant women ($N=6,179$)	Pregnant female offenders ($N=320$)
	N (%)	*N* (%)
First 3 months	1,807 (29.5%)**	120 (38.2%)**
Second 3 months	2,242 (36.6%)**	115 (36.6%)**
Third 3 months	2,069 (33.8%)**	79 (25.2%)**

Data: weighted data from the National Survey on Drug Use and Health, 2002–2008
*$p<.05$; **$p<.01$; ***$p<.001$

Consequences of Alcohol Use among Drinking Pregnant Women

As displayed in Table 4, pregnant supervised women offenders who had used alcohol in the year prior to the NSDUH interview suffered wider and deeper consequences from their alcohol use than drinking pregnant women from the non-CJ population. In general, drinking pregnant offenders were three to five times more likely than their non-CJ counterparts to experience emotional or nervous problems; physical health problems; reduced involvement in important activities; serious problems at home, school, or work; performance of dangerous tasks under the

TABLE 3 History and patterns of alcohol use among pregnant women ($N=6,499$)

	Non-CJ pregnant women ($N=6,179$)		Pregnant offenders ($N=320$)	
	N (%)	*M* (SD)	*N* (%)	*M* (SD)
Age of first alcohol use (years)	–	16.2 (3.1)***	–	14.5 (2.8)***
Prevalence of alcohol use in the past year	3,673 (59.4%)*	–	212 (66.6%)*	–
Frequency of alcohol use in the past year (days)	–	49.6 (6.4)***	–	74.9 (81.8)***
Prevalence of alcohol use in the past month	626 (10.1%)***	–	68 (21.2%)***	–
Frequency of alcohol use in the past month (days)	–	4.6 (5.5)*	–	6.3 (7.5)*
Problem drinking: 2 drinks per day in the past month	325 (5.3%)***	–	46 (14.4%)***	–
Prevalence of cigarette smoking in the past month	1,349 (21.8%)***	–	141 (44.1%)***	–
Prevalence of illicit drug use in the past month[a]	372 (6.0%)***	–	75 (23.4%)***	–

Data: weighted data from the National Survey on Drug Use and Health, 2002–2008
[a]Illicit drugs surveyed in this item include hallucinogens, heroin, marijuana, cocaine, inhalants, and non-medical use of psychotherapeutics (i.e., pain relievers, stimulants, tranquilizers, and sedatives)
*$p<.05$; **$p<.01$; ***$p<.001$

TABLE 4 Consequences of alcohol use among pregnant drinkers (*N* = 3,886)

	Non-CJ pregnant drinkers (*N* = 3,673)	Pregnant offender drinkers (*N* = 213)
	N (%)	*N* (%)
Alcohol use caused problems with emotions and nerves in the past year[a]	222 (7.9%)***	45 (26.5%)***
Had physical health problems that were probably caused or made worse by alcohol use in the past year[a]	42 (1.6%)***	10 (7.3%)***
Spent less time in important activities because of alcohol use in the past year[a]	200 (7.1%)***	46 (26.9%)***
Alcohol use caused serious problems at home, work, or school in the past year[a]	139 (5.0%)***	43 (25.3%)***
Drank alcohol and did dangerous activities in the past year[a]	286 (10.2%)***	55 (32.7%)***
Alcohol use caused problems with law in the past year[a]	37 (1.3%)***	32 (18.7%)***
Alcohol use caused problems with family and friends in the past year	221 (7.9%)***	50 (29.2%)***
Met the clinical criteria of alcohol abuse or dependence in the past year	432 (11.8%)***	74 (34.7%)***
Received treatment for alcohol use in the past year	40 (1.1%)***	32 (15.0%)***

Data: weighted data from the National Survey on Drug Use and Health, 2002–2008

Pregnant drinkers are defined as pregnant respondents who had used alcohol in the year prior to the NSDUH interview

[a]This item was presented to adult respondents aged 18 or older

*$p < .05$; **$p < .01$; ***$p < .001$

influence; problems with the law; and problems with family and friends as result of their alcohol use. As a natural extension of this crisis, 34.7% of the pregnant supervised women offenders who had used alcohol during the year prior to the interview met the clinical criteria of alcohol abuse and/or dependence as defined in the *Diagnostic and Statistical Manual of Mental Disorders IV*. That is, more than one-third of drinking pregnant offenders were incapable of stopping or cutting down their alcohol use despite negative consequences and/or demonstrated symptoms of tolerance and withdrawal. Only 11.8% of drinking non-CJ women were abusing or dependent on alcohol.

When it comes to access to alcohol abuse treatment, pregnant women under criminal justice supervision enjoyed some significant advantage over their non-CJ counterparts. As many as 15.0% drinking pregnant offenders participated in some kind of alcohol abuse treatment, whereas only 1.1% of drinking non-CJ women received intervention. Ironically, criminal justice supervision, either as incarceration or parole, is often the only provider of care and services accessible by these underserved and vulnerable Americans of extremely disadvantaged backgrounds.

DISCUSSION

If the various prevalence rates reported in this study are applied to the most recent counts of female offenders under community supervision,[4] it is estimated that about

52,800 (4.7%) of the 1,124,400 women on probation or parole were pregnant in 2008. Slightly over 7,600 (14.4%) of these pregnant offenders would have been problem drinkers at a very high risk of miscarriage, stillbirth, and a range of lasting damages to their babies, including FASDs. These pregnant offenders engaging in problem drinking, many in the second and third trimesters of pregnancy, represent one of the highest risk populations of pregnant women reported to date. They are at a very high risk to have a child with FASDs.

As a calamity affecting some of the most vulnerable members of our society (i.e., lower-class minority women and their babies),[12] problem drinking among pregnant offenders has been an overlooked cause of health disparities. Involvement in substance use and/or criminal activities is now seen as a part of the lifecycle for many girls and women, particularly minorities. Female offenders displaying high-risk health behaviors are the least likely to become caring and effective mothers or law-abiding citizens until their detrimental behaviors and unmet physical, psychological, and social needs are addressed. Alcohol consumption during pregnancy is a documented risk factor that promulgates developmental disorders and substance use in the child,[13,14] which in turn reinforces the intergenerational cycle of morbidity and criminality.[15,16] Among individuals with FASDs, their lifetime prevalence of arrest and penal or psychiatric institutionalization tops or exceeds 50%.[17]

An effective response to the crisis requires revamping the penal philosophy underpinning our practice of community corrections. Probation and parole overseers must be transformed from bureaucratic agents of control and surveillance into active screeners for medical needs and providers of healthcare services. Healthcare falls low on the agenda of the current criminal justice establishment because health is often misperceived as unrelated to law and order. Yet, mounting evidence now points to the fact that unhealthy offenders are the least likely to become productive, law-abiding citizens until their unmet physical and psychiatric needs are addressed.[18] The promotion of positive health behaviors among criminal offenders under community supervision must be seen and implemented as a fundamental link in the chain of pro-social developments leading to a successful reentry to society.

Tested behavioral management strategies adopted by progressive probation or parole agencies hold promise for turning surveillance agents into prevention specialists. Probation and parole officers trained in motivational interviewing and positive conduct reinforcement have proved to be more effective in inducing pro-social changes and maintaining progress.[19–21] The working relationship between officers and supervised pregnant women is important in creating an environment where offenders feel they can trust the officer and are motivated to comply with the conditions of release. Because of insufficient evidence for a safe level of drinking during pregnancy, there are no solid scientific data to define any threshold for low-level drinking in pregnancy. Therefore, supervision officers must remember that abstinence is the prudent choice for an offender who is or might become pregnant. Since smoking is an important risk modifier in FASDs, smoking cessation should also be imposed as a supervision condition. Supervision plans need to incorporate behavioral contracts and targeted goals to address alcohol consumption or other substance use, conditions of monitoring, and incremental steps to develop a fuller spectrum of health behaviors. Performance management requirements such as weekly feedback on progress can only strengthen the alliance, because what gets measured gets done. The plan for pregnant offenders should also include contingency management agreements to hold the offender and the supervision agency accountable.

Prevention of drinking among pregnant offenders should not only target pregnant offenders, but also young females under supervision who are at risk of becoming pregnant. Prenatal care providers serving pregnant offenders also need additional training on substance abuse detection and work with addiction professionals to prevent alcohol-exposed pregnancies in women offenders of childbearing age through screening and brief interventions for alcohol use. Mental health problems and previous substance use behaviors indicate higher odds of drinking during pregnancy. Screening for alcohol consumption should be conducted regularly for all pregnant offenders and offenders of child-bearing age. Furthermore, at-risk drinking could be identified before pregnancy, allowing for timely change. Probation and parole officers could disseminate education on alcohol use when discussing birth control and health in general. The delivery of evidence-based substance use treatment services to at-risk pregnant offenders will be conducive to reduced substance use and FASD risks, healthy pregnancy and delivery, and a more successful social reintegration. These practices by criminal justice agents are likely to bring about improvements in public safety and reductions in health disparities.

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