Women’s opinions of legal requirements for drug testing in prenatal care

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Abstract

Purpose: To explore women’s attitudes and perceptions regarding legal requirements for prenatal drug testing.

Methods: Web-based survey of 500 US women (age 18–45) recruited from a market research survey panel. A 24-item questionnaire assessed their opinion of laws requiring doctors to routinely verbal screen and urine drug test patients during pregnancy; recommendations for consequences for positive drug tests during pregnancy; and opinion of laws requiring routine drug testing of newborns. Additional questions asked participants about the influence of such laws on their own care-seeking behaviors. Data were analyzed for associations between participant characteristics and survey responses using Pearson’s chi-squared test.

Results: The majority of respondents (86%) stated they would support a law requiring verbal screening of all pregnant patients and 73% would support a law requiring universal urine drug testing in pregnancy. Fewer respondents were willing to support laws that required verbal screening or urine drug testing (68% and 61%, respectively) targeting only Medicaid recipients. Twenty-one percent of respondents indicated they would be offended if their doctors asked them about drug use and 14% indicated that mandatory drug testing would discourage prenatal care attendance.

Conclusion: Women would be more supportive of policies requiring universal rather than targeted screening and testing for prenatal drug use. However, a noteworthy proportion of women would be discouraged from attending prenatal care – a reminder that drug testing policies may have detrimental effects on maternal child health.

Keywords

Substance abuse, neonatal abstinence syndrome, prenatal care, drug testing

Introduction

The misuse and abuse of opioid pain medication has grown exponentially in women of child-bearing age in the United States within the last decade [1]. As a result, children born to opiate-dependent mothers with neonatal abstinence syndrome (NAS) are increasing in similar frequency [2]. Many states consider this a form of child abuse, requiring reporting to local law officials [3–5]. This calls into question the ethical and legal ramifications of testing pregnant women for illicit substances [6].

While it is known that facilitating an early and open communication between the patient and the provider about substance use, accompanied by verbal screening techniques, improves fetal outcomes [7], the question of implementing legal mandates for universal drug testing during pregnancy continues to be a topic of concern and debate. Studies have shown that the fear of potential criminal consequences and disapproval by physicians have delayed opiate-dependent, pregnant women in seeking prenatal care [8,9], raising concerns regarding the potential for unintended consequences from testing mandates. However, universal requirements may mitigate current biased and/or discriminatory testing practices [4]. At present, the decision whether to conduct a urine drug screen is typically determined by the suspicion of the physician [10]. Under these practices, black and underprivileged women are more likely to be targeted for drug testing, despite evidence showing that the rates of opioid use among black and non-black populations are statistically similar [3,4]. This can manifest as cynicism and mistrust within these populations, fracturing their relationship with healthcare providers and the healthcare system. Such barriers to care are particularly concerning among socially and financially disadvantaged populations, as they bear the greatest risks of adverse pregnancy outcomes [11].

Studies have been conducted that attempt to quantify opioid misuse in pregnant women and determine the knowledge that substance abusing women have of the risk of drug use during pregnancy [12,13]. However, no studies have
addressed the general population’s opinions regarding requirements for drug testing during the prenatal period. This study aims to explore the attitudes and perceptions of women of reproductive age regarding legal requirements for prenatal drug testing.

Materials and methods

Study population

With approval from the Indiana University Institutional Review Board (Protocol #1410459937), we conducted a web-based survey of 500 women of reproductive age. We contracted with Market Strategies International, a market research firm with expertise in the healthcare industry, to identify a sample of women in our target demographic from across the United States. All women were recruited from an available survey panel maintained by Market Strategies International. Women between the ages of 18 and 45 were eligible to participate, while non-English-speaking women were excluded. Panel members meeting these qualifications were sent an email containing a link to the survey. The survey remained open until the target number of respondents (500 women) was achieved. Participation was completely voluntary and women were not compensated for completing the survey.

Survey instrument

Participants completed a 24-item web-based questionnaire assessing their opinion of universal drug testing during pregnancy (Supplemental Online Material – Item 1). The instrument was developed in conjunction with health policy and medical ethics experts, referencing a previously published survey on parental attitudes toward neonatal blood spot testing to adapt question stems and identify related ethical and legal concerns [14]. Using a multiple-choice response format, items assessed whether participants would support the implementation of laws requiring doctors to screen for drug use verbally and/or routinely perform urine drug testing during pregnancy. We asked whether participants would support these laws for all women, or only those receiving Medicaid, and whether they would support the law if the drug test needed to be paid for by the patient or the state. Participants were also asked to suggest consequences for women who did not comply with testing and for those who tested positive for drug use. In order to assess the impact of universal drug testing on prenatal care uptake, we asked participants about the influence of these laws on their own behaviors. Participants also reported their experiences with drug abuse questioning and testing. Finally, participants were asked a series of questions about their fertility and pregnancy histories and completed a demographics questionnaire.

Analysis

To ensure representativeness of respondents, the data were weighted to reflect national population statistics based on data from the United State Census. Univariate statistics were used to describe the study population. Associations between participants’ demographics and survey responses were identified using Pearson’s chi-squared test, with significance defined at alpha \( \leq 0.05 \). Data were analyzed using StataSE 13 (StataCorp LP, College Station, TX).

Results

A total of 595 panel members opened the email invitation and accessed the survey. Of these, the first 500 respondents who met the inclusion criteria and completed the survey were included in the analysis. Of note, only 15 of the 595 participants refused (1) or did not complete (14) the survey; an additional two were deemed ineligible; and 78 accepted their invitation after the recruitment target was already reached. Table 1 describes our study population. Table 2 presents the frequency of responses to selected survey items, while Tables 3 and 4 present the tests of association between respondent characteristics and survey responses.

Verbal screening laws

An overwhelming majority of survey respondents (86%) stated that they would support a law requiring doctors to ask all pregnant women routinely about illegal drug use, including marijuana and prescription drug abuse, and 61% stated that a pregnant woman should not be allowed to decline to answer these questions (Table 2). In fact, almost a third of participants (30%) indicated that the physician should be able to decline to provide ongoing prenatal care if the patient declined to give a response. Respondents were more likely to support such a law if they were of higher income (50% versus 33%, \( p = .049 \)) and privately insured (52% versus 31%, \( p = .007 \)) (Table 3).

Fewer women, but still a sizable majority (68%) of respondents, were willing to support a law that only required verbal screening of Medicaid recipients, and most (64%) indicated that Medicaid recipients should not be permitted to decline to answer questions about drug use. Over a third (35%) stated that the physician should be able to decline to provide care for Medicaid recipients who decline to answer, and only 4% felt that the Medicaid recipients who declined to respond should lose their Medicaid benefits.

Drug testing laws

When asked if they would support a law that required all pregnant women to routinely have urine drug tests performed for illegal drugs, including marijuana, almost three-quarters (73%) of respondents indicated that they would support such a law, and 60% stated that pregnant women should not be allowed to decline a urine drug test. As with verbal screening, roughly a third (35%) stated that the physician should be able to decline to provide prenatal care to pregnant women who declined testing. Again, respondents were more likely to support this law if they were of higher income (43% versus 29%, \( p = .003 \)). As with verbal screening, slightly fewer, but still the majority of, respondents (60%) were supportive of a law that required drug testing of only Medicaid recipients, and 62% thought that Medicaid recipients should not be able to decline testing (Table 4).
Drug use in pregnancy and payer source

When posed with the prompt, “If a pregnant woman is found to test positive for illegal drugs,” 70% of respondents stated that the patient should be referred for drug treatment; just over half (51%) indicated that Child Protective Services (CPS) should be notified; and a quarter (25%) responded the police should be notified. Moreover, for Medicaid recipients, 45% of respondents said that the patient should lose her Medicaid benefits/coverage.

The payer source for drug testing did change some participants’ responses. When asked if they would support a law for universal drug testing in pregnancy, if drug testing were paid for by the state, 64% responded that they would; whereas a smaller majority (52%) were still supportive when the patient had to pay for the testing.

Drug testing newborns

Most (72%) survey respondents stated that they would support a law that required drug testing of either urine or stool on all newborn babies whose mothers declined urine drug testing during pregnancy; but fewer (61%) were supportive of a law that would target newborn testing to Medicaid recipients that declined antenatal drug testing. If the patient declined drug testing and their infant was subsequently found to test positive for drugs, 67% of respondents stated that CPS should be notified; but if the patient had agreed to drug testing and the newborn tested positive, fewer respondents (59%) thought CPS notification was warranted.

Impact of care

Almost two-thirds of respondents (65%) reported that they have been asked about drug use at a doctor’s visit, and one-third had been urine drug-tested at a doctor’s visit. Twenty-one percent of respondents indicated that they would be offended if their doctors routinely asked them about drug use, and 14% indicated that mandatory drug testing would discourage them from attending prenatal care appointments.

Conclusion

We set out to explore the attitudes and perceptions of women of reproductive age regarding legal requirements for prenatal drug testing and their impact on prenatal care and the doctor–patient relationship. We found that women, on the whole, were very supportive of laws mandating universal verbal screening and urine drug testing, and less supportive of measures targeting low-income patients. Similarly, respondents were supportive of newborn drug testing. Moreover, most respondents felt that pregnant women should not be able to decline drug testing for themselves or their newborns. Women were somewhat less supportive of drug-testing mandates when patients incurred the cost of testing. While most respondents would not be offended if their doctors routinely asked them about drug use, 14% indicated that mandatory

Table 1. Study population.

| Race          | Percent |
|---------------|---------|
| White         | 75.0    |
| Non-White     | 25.0    |
| Ethnicity     |         |
| Hispanic      | 17.3    |
| Non-Hispanic  | 82.7    |
| Marital status|         |
| Married       | 58.5    |
| Unmarried     | 41.5    |
| Education     |         |
| High school or less | 34.2 |
| Some college or more | 65.8 |
| Household Income |     |
| Less than $50,000 | 38.8 |
| $50,000 or more | 61.2 |
| Insurance     |         |
| Private       | 58.5    |
| Federal/uninsured | 41.5 |
| Able to bear children |   |
| Yes           | 88.7    |
| No            | 11.3    |
| Deliveries (past 12 months) |     |
| Yes           | 10.3    |
| No            | 89.7    |
| Pregnant      |         |
| Yes           | 5.8     |
| No            | 94.2    |

Table 2. Response frequencies to selected survey items.

| Question                                                                 | Yes %(N)* | No % (N) | Don’t Know % (N) |
|--------------------------------------------------------------------------|-----------|----------|-----------------|
| Would you support a law that required doctors to routinely ask all pregnant women about illegal drug use, including marijuana and prescription drug abuse? | 85.6 (426) | 10.1 (47) | 4.3 (27)        |
| Would you support a law that required doctors to routinely ask questions about illegal drug use, including marijuana and prescription drug abuse only of pregnant women receiving Medicaid? | 67.8 (335) | 25.9 (130) | 6.3 (35)        |
| Would you support a law that required all pregnant women to routinely have their urine tested for illegal drugs, including marijuana? | 73.3 (358) | 18.1 (105) | 8.6 (37)        |
| Would you be in support of a law that only required pregnant women receiving Medicaid to have their urine routinely tested for illegal drugs, including marijuana? | 60.5 (295) | 33.5 (170) | 6.0 (35)        |
| Would you support a law that required drug testing of either urine or stool on all babies born to women who declined a urine drug test at the time of delivery? | 72.4 (354) | 19.4 (101) | 8.2 (45)        |
| Would you support a law that required drug testing of either urine or stool on only babies born to women receiving Medicaid who declined a urine drug test at the time of delivery? | 61.4 (299) | 29.5 (152) | 9.1 (49)        |

*Percentages reflect weighted data. N’s reflect unweighted data.
Drug testing in the peripartum period can have serious repercussions for women and newborns, both socially and legally. Child Protective Service referrals for child abuse and, in some states, criminal penalties have been imposed on women found to have positive urine drug tests in pregnancy [15]. These referrals and penalties have been imposed disproportionately on women of color and women of lower socioeconomic status [4,10,16]. The American College of Obstetricians and Gynecologists (ACOG), along with other professional and public health organizations, has taken a strong stance against policies that create punitive measures for substance abusing pregnant women reasoning that, “Putting pregnant women in jail, where substances may be more available but treatment is not, jeopardizes the health of pregnant women and that of their existing and future children” (p. 5) [17]. Instead, they advocate for interventions and policy proposals that promote a therapeutic alliance between doctors and patients; and those that develop an adequate infrastructure for treatment and rehabilitation [17].

Given the potential for adverse psychosocial consequences that may result from drug testing in pregnancy, careful consideration should be taken with regards to our ethical and legal obligation to pregnant patients. With regards to implementing required drug testing, parallels have been drawn to the HIV testing paradigm, given that both have potentially severe adverse social implications for patients – although HIV does not put women at risk of losing their parental rights and/or facing criminal charges. There was, in fact, initially controversy surrounding decisions on strategies for counseling and testing patients for HIV. Three strategies were debated by public health and public policy officials: (1) “Opt-in” testing, whereby patients would volunteer for the test after being counseled regarding its risk and benefits, (2) “Opt-out” testing, consisting of universal testing with patient notification and right of refusal, and (3) Mandatory testing with no right of refusal [18]. The latter option, mandatory testing, has been considered most problematic because it diminishes a pregnant woman’s autonomy entirely. Conversely, opt-in testing is the strategy most readily utilized for medical procedures, following a process of informed consent. However, in light of the public health implications of HIV infections, arguments were made that it was critically important to reduce barriers to testing (i.e. pretest counseling requirements) so that more physicians would offer the test; more infected women would be identified and treated; and more mother-to-infant HIV transmission would be prevented. The opt-out strategy was thought to balance competing ethical

Table 3. Participants’ support of a law requiring doctors to routinely ask about drug use by participant characteristic, N = 500.

|                        | All pregnant women | Pregnant women receiving Medicaid only | p   |
|------------------------|--------------------|---------------------------------------|-----|
|                        | Yes    | No    | Don’t know |        | Yes    | No    | Don’t know |        |
| Race                   |        |       |            | .753  |        |       |            | .069  |
| White                  | 63.7%  | 8.3%  | 3.0%       |       | 52.6%  | 17.6% | 4.8%       |       |
| Non-White              | 21.3%  | 1.8%  | 1.3%       |       | 15.2%  | 7.8%  | 1.4%       |       |
| Refused                | 0.5%   | 0%    | 0.1%       |       | 0%     | 0.5%  | 0.1%       |       |
| Ethnicity              | .956   |       |            | .222  |        |       |            |       |
| Hispanic               | 15.0%  | 1.6%  | 0.7%       |       | 13.1%  | 3.0%  | 1.2%       |       |
| Non-Hispanic           | 70.0%  | 8.5%  | 3.6%       |       | 54.7%  | 22.5% | 5.0%       |       |
| Refused                | 0.5%   | 0%    | 0.1%       |       | 0%     | 0.5%  | 0.1%       |       |
| Marital status         | .522   |       |            | .006  |        |       |            |       |
| Married                | 50.6%  | 5.5%  | 2.5%       |       | 42.3%  | 13.6% | 2.6%       |       |
| Unmarried              | 34.6%  | 4.6%  | 1.6%       |       | 25.6%  | 12.0% | 3.3%       |       |
| Refused                | 0.4%   | 0%    | 0.2%       | .035  |        |       |            |       |
| Education              | <.001  |       |            |       |        |       |            |       |
| High school or less    | 28.1%  | 5.4%  | 0.7%       |       | 21.5%  | 11.0% | 1.7%       |       |
| Some college or more   | 57.5%  | 4.6%  | 3.5%       |       | 46.3%  | 65.6% | 4.5%       |       |
| Refused                | 0%     | 0.1%  | 0.1%       |       | 0%     | 0.1%  | 0.1%       |       |
| Household income       | .049   |       |            | <.001 |        |       |            |       |
| Less than $50,000      | 33.1%  | 3.9%  | 1.8%       |       | 26.0%  | 10.6% | 2.3%       |       |
| $50,000 or more        | 50.3%  | 5.6%  | 1.8%       |       | 41.2%  | 13.4% | 3.2%       |       |
| Refused                | 2.1%   | 0.6%  | 0.7%       |       | 0.7%   | 1.9%  | 0.9%       |       |
| Insurance              | .007   |       |            | .001  |        |       |            |       |
| Private                | 52.4%  | 4.3%  | 1.7%       |       | 42.1%  | 12.8% | 3.6%       |       |
| Federal/uninsured      | 30.5%  | 5.7%  | 2.1%       |       | 24.6%  | 12.1% | 1.6%       |       |
| Refused                | 2.6%   | 0%    | 0.3%       |       | 1.1%   | 1.0%  | 1.1%       |       |
| Able to bear children  | .292   |       |            | .035  |        |       |            |       |
| Yes                    | 75.4%  | 9.3%  | 4.0%       |       | 60.9%  | 22.8% | 5.1%       |       |
| No                     | 8.4%   | 0.5%  | 0%         |       | 6.0%   | 2.5%  | 0.5%       |       |
| Refused                | 1.8%   | 0.2%  | 0.4%       | .005  |        |       |            | .002  |
| Deliveries (last 12 months) |        |       |            |       |        |       |            |       |
| Yes                    | 9.7%   | 0.5%  | 0.1%       |       | 7.9%   | 2.3%  | 0.1%       |       |
| No                     | 75.3%  | 9.8%  | 4.4%       |       | 60.7%  | 23.4% | 5.4%       |       |
| Refused                | 0%     | 0.3%  | 0%         | .123  |        |       |            | .528  |
| Pregnant               |        |       |            |       |        |       |            |       |
| Yes                    | 5.2%   | 0.3%  | 0.3%       |       | 4.4%   | 1.4%  | 0%         |       |
| No                     | 79.8%  | 10.0% | 4.2%       |       | 64.3%  | 24.1% | 5.7%       |       |
| Refused                | 0%     | 0.2%  | 0%         | 0%    |        |       |            |       |
considerations: beneficence-based obligations (societal and individual) to identify and treat disease and autonomy-based obligations for respect-for-persons. By testing universally, with notification rather than extensive counseling, barriers were lowered to increase testing for the public good; while offering the right to refuse the test afforded women a degree of autonomy, which though diminished, was not entirely extinguished.

Similar debates arise with prenatal drug testing. Those who argue for opt-out prenatal drug testing strategies reason that this would minimize barriers to testing for providers and ensure broader screening and catchment; opponents question the merit of decreasing the pretest-counseling responsibilities for the convenience of physicians, at the expense of patient autonomy. Still, others might make the public health argument that this is done in the interest of early identification and treatment for newborns; and therefore, “societal good” trumps “individual liberties”. While substance abuse is not a communicable condition, it does have implications for the health of the newborn, and though “transmission” cannot be prevented entirely, with maternal drug treatment and counseling, some detrimental effects of substance use disorder, if identified early, can be mitigated. However, this argument for prevention and harm reduction only holds when there are adequate resources for substance abuse treatment and rehabilitation available to the expanded catchment of newly identified women. This raises a host of concerns about affordability and availability of drug treatment and rehabilitation services for pregnant and parenting women, as the supply of accessible options for substance abuse treatment programs and facilities currently exceeds the demand for those services in most communities in our nation. Therefore, a critical policy question must be broached: rather than “how would we test everyone”; we need to ask “should we test everyone?” This latter question squares directly with the first criterion for testing, namely that the test should benefit the patient [19]. Legislating efforts to identify substance use disorders without an adequate mental health/treatment infrastructure and referral process in place to get the pregnant woman treatment may represent a fundamentally flawed screening procedure.

With these concerns in mind, we were surprised to find that our respondents were overwhelmingly in favor of universal testing of pregnant women. We did think it noteworthy that respondents were less supportive of policies that targeted low-income women, suggesting that if testing were required, it should be deployed in a universal, nondiscriminatory manner. This notion is underscored by ACOG, which endorses universal verbal screening, but not universal urine drug testing, recommending that verbal

| Race | Yes | No | Don't know | p  |
|------|-----|----|------------|----|
| White | 55.8% | 13.4% | 5.8% | .288 |
| Non-White | 17.4% | 4.2% | 2.8% | 46.0% |
| Refused | 0.2% | 0.4% | 0% | 0% |
| Hispanic | 14.4% | 1.8% | 1.1% | 11.7% |
| Non-Hispanic | 58.8% | 15.9% | 7.4% | 48.8% |
| Refused | 0.2% | 0.4% | 0% | 0% |
| Marital status | .211 | .311 | .111 | .063 |
| Married | 44.2% | 10.7% | 3.6% | 37.2% |
| Unmarried | 29.1% | 7.0% | 4.8% | 23.3% |
| Refused | 0.1% | 0.4% | 0.1% | 0% |
| Education | .199 | .199 | .199 | .003 |
| High school or less | 25.8% | 5.3% | 3.1% | 19.0% |
| Some college or more | 47.5% | 12.8% | 5.3% | 41.5% |
| Refused | 0% | 0% | 0.1% | 0% |
| Household income | .003 | .003 | .003 | .004 |
| Less than $50,000 | 29.2% | 6.5% | 3.1% | 22.9% |
| $50,000 or more | 43.2% | 9.9% | 4.6% | 36.5% |
| Refused | 0.9% | 1.7% | 0.9% | 1.1% |
| Insurance | .004 | .004 | .004 | .193 |
| Private | 44.0% | 10.9% | 3.5% | 37.6% |
| Federal/uninsured | 27.5% | 7.0% | 3.8% | 21.2% |
| Refused | 1.8% | 0.2% | 1.2% | 1.7% |
| Able to bear children | .713 | .713 | .713 | .222 |
| Yes | 64.5% | 16.5% | 7.7% | 53.3% |
| No | 7.3% | 1.0% | 0.6% | 5.9% |
| Refused | 1.5% | 0.6% | 0.3% | 1.3% |
| Deliveries (last 12 months) | .108 | .108 | .108 | .004 |
| Yes | 9.0% | 1.0% | 0.3% | 7.0% |
| No | 63.8% | 17.3% | 8.4% | 53.1% |
| Refused | 0% | 0.3% | 0% | 0% |
| Pregnant | .449 | .449 | .449 | .149 |
| Yes | 4.6% | 0.7% | 0.5% | 4.7% |
| No | 68.1% | 17.8% | 8.2% | 55.3% |
| Refused | 0% | 0.2% | 0% | 0% |

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Table 4. Participants’ support of a law requiring doctors to routinely drug test pregnant women by participant characteristic, N = 500.
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Declaration of interest

The authors report no conflicts of interest.

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