Clearing the air: discrepant policy and practice concerning neonatal cannabinoid exposure

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In our experience, physicians do not harbor strong feelings of admonishment toward mothers who expose the fetus to delta-9-tetrahydrocannabinol (THC), but neither is this exposure condoned. Their quandary stems from the fact that risk-benefit ratios are exceedingly hard to estimate without hard information on THC risks or benefits and that the benefits of breast feeding are well known. It will take decades to fully study the neurodevelopmental changes linked to this exposure. Even so, state policies with regard to neglect and abuse issues can and should be updated on a periodic basis to reflect best practices. Additional clarity on the scientific and legal issues surrounding fetal THC exposure would likely to improve our neglect and abuse decision-making and reporting.

In the current medical environment, efforts to improve detection rates and subsequent management for infants with neonatal abstinence syndrome (NAS), a condition typically associated with opiates, are being renewed and strengthened.[1] We laud recent legislation such as the Protecting Our Infants Act of 2015, as it is well established that alignment between research, policy and practice results in better population health.[2] As detection protocols are implemented, incidental detection of THC metabolites in infants will almost certainly increase given that NAS testing is typically accomplished using panel assays. In light of this, as well as in the context of evolving laws regarding recreational and medical marijuana, the issue of child neglect with respect to neonatal cannabinoid exposure will increase in prevalence.

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Child abuse and neglect are peculiar and often perplexing concepts for physicians. Definitions of abuse or neglect are frequently contested due to the various and fluid identifying criteria applied by physicians. In addition, what may be viewed as neglect from a legal perspective may or may not be considered neglect from a medical standpoint. Federal and state laws make it very clear that physicians must report suspected child abuse and neglect. However, national estimates indicate that just half the cases physicians suspect get reported.[3] Indeed, government failures to establish clear reporting requirements and physician reluctance to follow unclear requirements have resulted in a pattern of non-adherence to abuse and neglect reporting policies.

Given the murkiness still present in research recommendations and policymaking, it comes as no surprise that actual practice often does not follow state policy for reporting abuse with regard to any substance. In our state of Illinois, for example, the Department of Child and Family Services (DCFS) received 558 reports of substance exposure in infants in 2012. However, in that same year, the Adverse Pregnancy Outcomes Reporting System (APORS) recorded over 1778 reports of drug exposure in Illinois, which indicates that at least 1220 instances of infant exposure to illicit substances were not reported to the state.

The experiences regarding reporting newborns with potential *in-utero* drug exposure are a prime example of policy ineffectively translating into practice. In many jurisdictions, *in-utero* marijuana exposure is categorized as a newborn chemical dependency, a harm that falls within the statutory language of child abuse. This creates a problem with regard to medically recommended marijuana, an increasingly common treatment for various diseases that can have medicinal benefits and serious adverse effects.[4] Most state legislatures have not provided a safe harbor for physicians that would allow them to treat underlying medical issues of mothers and fetuses exposed to marijuana without the risk of legal consequences.

A case in point with regard to the lack of clarity regarding legal and medical reporting issues for marijuana is neonatal cannabinoid exposure in Illinois.

Per Illinois' Abused and Neglected Child Reporting Act (325 ILCS 5/3), a "Neglected child" means "any child…who is a newborn infant whose blood, urine, or meconium contains any amount of a controlled substance as defined in subsection (f) of Section 102 of the Illinois Controlled Substances Act…." ILCSA does not mention marijuana, cannabis, or hashish, as these substances were removed from it in 1979 when the Cannabis Control Act passed. However, ILCSA does include this in Schedule III: "*dronabinol*: (*6aR-trans*)-*6a,7,8,10a-tetrahydro- 6,6,9-trimethyl-3-pentyl-6H-dibenzo* (*b,d*) *pyran-1-ol*) *or* (-)-*delta-9*-(*trans*)-*tetrahydrocannabinol*." This makes finding THC in an infant's meconium prima facie evidence of neglect. These selections from Illinois state law seem to indicate that every newborn that tests positive for metabolites of THC in Illinois must be referred to the child welfare agency.

Confusion remains, however, regarding whether state laws such as these purposefully intended to remove THC from reporting requirements. If so, then some physicians are inappropriately reporting THC exposure, which could put unnecessary social stress on the physicians and the reported mothers and babies. On the other hand, if the laws intended to include THC exposure, then many physicians seem to be running afoul of them.

We see at least three potential explanations for discrepancies in reporting cannabinoid-exposed infants. The first is lack of education among physicians regarding the mandatory reporting requirements and mandates for opening case files with the Department of Social Services. Second, it may be that mandated reporters are confused by the apparently conflicting policies laid out by the legislative, justice and social service organizations. Thirdly, it is possible that physicians lean toward not reporting cannabinoid exposure in utero because the scientific literature is inconclusive about the detrimental effects of THC exposure on fetuses. As a recent meta-analysis reported, "Data are far from uniform regarding adverse perinatal outcomes. Existing studies are confounded by tobacco and other drug concurrent drug exposures as well as sociodemographic factors."[5]

Another confounding issue is the inconsistency regarding what substances or behaviors states classify as harmful or illegal. For example, the Food and Drug Administration has designated dronabinol as a pregnancy category "C" substance, and the American Academy of Pediatrics (AAP) states that breastfeeding is contraindicated in women using illicit drugs, citing little evidence to demonstrate harm in exposure to newborns. Physicians can also find themselves in a predicament in states where the drugs classified as illicit vary by jurisdiction. For example, 23 states have legalized medical marijuana and three—Colorado, Washington, and Oregon—permit recreational marijuana.

In our experience, physicians do not harbor strong feelings of admonishment toward mothers who expose the fetus to THC, but neither is this exposure condoned. Their quandary stems from the fact that risk-benefit ratios are exceedingly hard to estimate without hard information on THC risks or benefits and that the benefits of breast feeding are well known. It will take decades to fully study the neurodevelopmental changes linked to this exposure. Even so, state policies with regard to neglect and abuse issues can and should be updated on a periodic basis to reflect best practices. Additional clarity on the scientific and legal issues surrounding fetal THC exposure would likely to improve our neglect and abuse decision-making and reporting.

This can be done. When Colorado legalized recreational marijuana in 2011, many questions arose about the drug's status vis-a-vis neglect. Colorado officials responded by making it clear that, even though recreational marijuana use is now legal, infant exposure continues to represent neglect. We in Illinois, as well as physicians in other states, look forward to receiving such guidance. In addition to clarifying existing legislation, we recommend that statutes be amended to focus on actual or possible harms to a child rather than the mother's conduct, however socially undesirable it may be. For example, reporting of substances such as alcohol and tobacco that have well-documented detrimental effects of *in-utero* exposure is not mandatory in most states. Marijuana, which does not have well-established *in-utero* effects, should have some degree of physician discretion with respect to reporting neglect and abuse. Any discussions regarding amendments to current reporting laws should include the participation of clinicians, biomedical and public health researchers, and expectant parents. Finally, in addition to continued neurodevelopmental and behavioral research into the sequela of cannabinoid neonatal substance exposure, further studies are needed to better define the discrepancy in SEI reporting, as well as the etiology of these reporting behaviors.

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