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# Surveying Lactation Professionals Regarding Marijuana Use and Breastfeeding

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## Abstract

***Background:*** Breastfeeding is associated with substantial benefits for both the child and mother. Most guidelines state that women who use illicit drugs should not breastfeed. Although this recommendation has traditionally included marijuana, this drug's changing legal status and the limited scientific research regarding marijuana's effect on breastfeeding and the nursing child may lead to varying recommendations made by lactation professionals to clients who use marijuana. Additionally, to our knowledge, there are no data estimating the prevalence of marijuana use among breastfeeding women, making it unclear how common it is. This study assessed recommendations around breastfeeding and marijuana use and estimated the prevalence of marijuana use among breastfeeding women.
***Materials and Methods:*** A convenience sample of lactation professionals who practice throughout New England and were attending the 2014 Vermont Lactation Consultant Association conference was offered the opportunity to complete a five-item survey.
***Results:*** Of 120 conference attendees, 74 completed the survey. Forty-four percent reported their recommendations around breastfeeding and marijuana use depended on factors like the severity of maternal use. Another 41% reported recommending continued breastfeeding because the benefits outweigh the harms. The remaining 15% reported recommending that a woman should stop breastfeeding if she cannot stop using marijuana. Survey completers estimated that 15% (1,203/7,843) of their breastfeeding clients in the past year used marijuana.
***Conclusions:*** Lactation professionals vary widely in their recommendations to breastfeeding clients who use marijuana. The estimate of prevalence also suggests this is a relatively common issue. More research is needed to assess the generalizability of these findings.

## Introduction

Breastfeeding is associated with substantial health benefits for the child and mother. For the child, short- and long-term benefits include significant reductions in risk for respiratory tract infections, otitis media, gastrointestinal tract infections, necrotizing enterocolitis, sudden infant death syndrome and infant mortality, allergic disease, celiac disease, childhood inflammatory bowel disease, obesity, diabetes, childhood leukemia and lymphoma, adverse neurodevelopmental outcomes, abuse, and neglect.[1,2] For the mother, short- and longer-term benefits include decreased postpartum blood loss, longer interpregnancy intervals, less postpartum depression, and decreased risk of type 2 diabetes mellitus, rheumatoid arthritis, cardiovascular disease, and breast and ovarian cancers.[1,2]

Despite the numerous benefits, at the time the survey reported on herein was conducted, authoritative and respected professional organizations like the American Academy of Pediatrics (AAP) and the Academy of Breastfeeding Medicine (ABM) generally advised that women who used illicit drugs should not breastfeed.[1,3] Although this recommendation traditionally included marijuana (cannabis), the legal status of marijuana has changed in many U.S. states in recent years. Indeed, recreational use of marijuana is legal in four states plus Washington, DC, and medical marijuana use is legal in 23 states plus Washington, DC. Recommendations made by other influential sources available at the time, such as Hale's *Medications and Mother's Milk*,[4] considered marijuana separately from other illicit drugs but still categorized marijuana use as a contraindication to breastfeeding.

Unfortunately, the scientific literature regarding the potential risks and benefits of marijuana use on breastfeeding in humans is very limited and does not provide clear guidance either. A recent summary found just four empirical reports on this topic.[5]

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The first two examined levels of tetrahydrocannabinol and its metabolites in breastmilk and other matrices of a total of three breastfeeding women (a once-a-day user, a seven-times-a-day user, and a user of unknown frequency) and two of their infants. Results suggest that tetrahydrocannabinol is secreted in human milk, is absorbed by the nursing infant, and may also be metabolized by the infant, although firm conclusions are difficult to draw given methodological limitations (e.g., sample size, limited number of sampling points).[6,7]

The other two studies were longitudinal studies examining how marijuana exposure via breastfeeding impacts infant development. In the first, infants whose mothers used marijuana during lactation ($n=27$) had similar growth outcomes, mental and motor development, and weaning ages compared with infants of nonusing mothers ($n=35$).[8] The findings, however, may be limited due to the small sample and wide variability in terms of dose and duration of use among the marijuana-using mothers. The second, larger study found significant deficits in motor development at 1 year of age among exposed infants ($n=68$) versus matched controls ($n=68$).[9] In subsequent analyses, this deficit was predicted by marijuana exposure during the first trimester of pregnancy and during the first month of lactation, making it difficult to determine which period of exposure had the stronger influence on infant motor development.

In sum, the very limited scientific literature on the potential risks and benefits of marijuana use on breastfeeding is suggestive at best.

Given the shifting legal landscape surrounding marijuana and the limited evidence regarding the potential risks and benefits of breastfeeding and marijuana use, it is unclear (1) what recommendations lactation professionals are making to clients who use marijuana and breastfeed and (2) what professional guidelines, statements, or other sources lactation professionals cite as the basis for their recommendations. In addition, it is unclear how often lactation professionals encounter women who use marijuana and breastfeed. However, given that marijuana is the most commonly used illicit drug among pregnant women[10] and that most women who abstain from marijuana use during pregnancy relapse postpartum,[11] it seems likely that lactation professionals are working with this population with some frequency.

## Materials and Methods

Data were collected at the Vermont Lactation Consultant Association conference, held April 17–18, 2014, in Burlington, VT. This continuing education conference is intended for those who work with childbearing and breastfeeding women and their families, and attendees historically practice throughout the New England area. (Of note is that recreational marijuana use remains illegal in all six New England states, although medical marijuana is legal in all six.) All attendees were offered the opportunity to complete a brief survey composed of up to five closed-ended questions. Because no identifying information was collected from survey respondents and their identity could not be readily ascertained by the research team, the University of Vermont Institutional Review Board determined that review of the project was not required because it did not constitute human subjects research. Descriptive statistics were used to summarize responses to each survey question.

## Results

Of the 120 conference attendees, 74 (62%) completed the survey. The first question asked respondents to indicate how they described their current occupation(s) most directly related to breastfeeding/lactation. Nearly all of the survey completers identified as either nurses ($n=43$, 58%) and/or lactation consultants ($n=34$, 46%). Other frequently endorsed occupations were public health/WIC (Special Supplemental Nutrition Program for Women, Infants, and Children) personnel ($n=11$, 15%), nutritionist ($n=5$, 7%) and midwife or doula (combined $n=5$, 7%), among others (Table 1).

The second question asked respondents whether they work with women who are breastfeeding and are also marijuana users. Of 74 survey completers, 61 (82%) indicated that they work with women who were both breastfeeding and using marijuana. Of the remaining 13 survey completers, nine (12%) indicated that they do not work with women who breastfeed and are marijuana users, and four (5%) indicated they ‘‘do not know’’ if they work with women who breastfeed and are marijuana users.

The 61 survey completers who indicated that they work with women who are both breastfeeding and using marijuana were asked to complete three additional questions. First, they were asked to indicate the total number of breastfeeding women they worked with last year, and of those, how many were also marijuana users. In the past year, the respondents saw a median of 100 breastfeeding women (range, 5–700), and a median of 15 were also marijuana users (range, 1–162) for an estimated prevalence of 15% (1,203/7,843).

The 61 survey respondents who reported working with women who are breastfeeding and are also marijuana users were also asked to choose one of four statements that best described their current stance on women who breastfeed and cannot stop using marijuana. Fifty-nine respondents completed this question, and possible responses and the percentage of respondents endorsing each are shown in Table 2. Most respondents indicated their recommendation in this situation would depend on factors like the severity of a woman’s use ($n=26$, 44%) or that they would recommend continued breastfeeding without any qualification ($n=24$, 41%).

These 59 respondents were also asked to indicate on which source(s) they based their current stance. Likely sources and

Table 1. Current Occupations Most Directly Related to Breastfeeding/Lactation Among Surveyed Lactation Professionals

| | n *(%) endorsing* |
|---|---|
| Nurse | 43 (58%) |
| Lactation consultant | 34 (46%) |
| Public health/WIC personnel | 11 (15%) |
| Nutritionist | 5 (7%) |
| Doula/midwife | 5 (7%) |
| Nurse practitioner | 2 (3%) |
| La Leche League affiliate | 1 (1%) |
| Other | 1 (1%) |

Values of *n* (%) sum to more than 74 (100%) because survey completers could endorse more than one occupation.

WIC, Special Supplemental Nutrition Program for Women, Infants, and Children.

Table 2. The Four Possible Responses to the Question "Which Statement Best Describes Your Current Stance on Women Who Breastfeed and Cannot Stop Using Marijuana?" and Number (Percentage) of Respondents Endorsing Each

| | n *(%) endorsing* |
|---|---|
| Whether they should stop breastfeeding depends on a number of factors (e.g., the severity of their marijuana use, their parenting situation, other lifestyle factors, etc.). | 26 (44%) |
| They should continue breastfeeding; the benefits of breastfeeding outweigh the harms of marijuana use. | 24 (41%) |
| They should stop breastfeeding because it is harmful to expose the baby to marijuana. | 6 (10%) |
| They should stop breastfeeding because they are dependent on an illegal drug that may adversely impact their ability to care for their baby. | 3 (5%) |

Fifty-nine survey completers provided responses.

the percentage of respondents endorsing each are shown in Table 3. Hale's *Medications and Mother's Milk*[4] was the most frequently endorsed source ($n=28$, 47%), followed closely by personal experience ($n=27$, 46%).

## Discussion

To our knowledge, this is the first effort to characterize clinical recommendations made to breastfeeding women who are also using marijuana and to estimate the prevalence of marijuana use while breastfeeding.

Despite the recommendations and guidelines of the AAP[1] and the ABM,[3] which at the time of the survey uniformly discouraged any illicit drug use while breastfeeding, the overwhelming majority of survey completers indicated that they make decisions about marijuana use during breastfeeding on a case-by-case basis or encourage breastfeeding despite marijuana use; only 15% of conference attendees routinely discouraged marijuana users from continued breastfeeding. Of note is that the ABM very recently revised its guidelines[12] (published in April 2015) and made recommendations regarding use of several specific drugs of abuse during lactation, including marijuana. The guidelines conclude by stating, "At this time, although the data are not strong enough to recommend not breastfeeding with any marijuana use, we urge caution."[12] This recommendation appears consistent with what many lactation professionals reported in our survey, that is, that they make decisions on a case-by-case basis.

Table 3. The Six Possible Responses to the Question "On What Do You Base Your Current Stance?" Regarding Women Who Breastfeed and Cannot Stop Using Marijuana and Number (Percentage) of Respondents Endorsing Each

| | n *(%) endorsing* |
|---|---|
| Hale's 2012 *Medications and Mother's Milk* book[4] | 28 (47%) |
| Personal experience | 27 (46%) |
| American Academy of Pediatrics 2012 policy statement[1] | 13 (22%) |
| Academy of Breastfeeding Medicine 2009 guidelines[3] | 10 (17%) |
| Child Protective Services policies in my state | 0 |
| Other | 0 |

Values of $n$ (%) sum to more than the 59 (100%) survey completers who provided responses because they could endorse more than one source.

In that vein, it was very surprising that Hale's *Medications and Mother's Milk*[4] was the most frequently cited source, with almost half of all survey respondents endorsing it. Although the AAP's and ABM's guidelines at the time of the survey largely dealt with illicit drugs as a group, Hale's book indexes and rates each drug separately. Hale places cannabis in the highest risk category, L5 or Hazardous, the criteria for which include the statement "using the drug in breastfeeding women clearly outweighs any possible benefit from breastfeeding,"[4] a conclusion at odds with the recommendations of many of the survey respondents. Of note is that a new edition of *Medications and Mother's Milk*[13] was published shortly after the survey was conducted (May 2014), but cannabis remains in the L5 or Hazardous category. Although there were not sufficient data to analyze statistically, it appeared that recommendations did not differ between professionals who referenced Hale and those who did not. The only source that appeared to influence which recommendation was made was the AAP statement,[1] with all of the professionals who cited AAP ($n=13$) not recommending continued breastfeeding if a woman could not stop using marijuana.

The shortage of research on this topic is underscored by the large number of professionals who base their recommendations on breastfeeding and marijuana use on personal experience, endorsing this source more frequently than the AAP and ABM statements and guidelines combined. Clearly, more empirical research is needed to more fully evaluate the risk–benefit ratio of marijuana use among breastfeeding women given substantial documented benefits and heretofore largely assumed risks. Additional research is also sorely needed given the apparent prevalence of this issue. The overwhelming majority of survey completers indicated that they had worked with women who were breastfeeding and using marijuana in the past year, with an overall estimate that 15% of their clients were breastfeeding and using marijuana.

The recent ABM protocol,[12] the current LactMed entry on cannabis,[5] and a 2013 review by Hill and Reed[14] address the shifting appraisal of marijuana use as a contraindication to breastfeeding. All three sources reiterate concerns over certain potential risks, like infant sedation, maternal inability to care for her infant while she is under the influence of marijuana, and developmental disruptions, while also acknowledging the general lack of research in this area. These potential risks are important avenues for future research that will help resolve this difficult situation.

Our results must be considered in light of some limitations. First, the survey relied on lactation professionals to estimate

how many of their clients were marijuana users who breastfeed. Although this is not an ideal way to gauge prevalence, it is difficult to estimate the prevalence of women who use marijuana and breastfeed using standard epidemiological approaches, as surveys of drug use rarely capture breastfeeding status and surveys of breastfeeding women rarely include questions about drug use, especially drugs like marijuana. At the least, these data provide an initial estimate that can be further refined in future studies.

An additional weakness was the format of the survey. The survey consisted of closed-ended questions, which may not have fully captured the recommendations and rationales of those surveyed. Relatedly, the wording of some items may have been unclear. For example, we included ''personal experience'' as one of the potential sources survey respondents could cite as supporting their current stance on breastfeeding and marijuana use. We intended this to mean their personal experience working with women who breastfeed and use marijuana, but it could have been interpreted as their personal experience using marijuana themselves.

Finally, the survey was conducted in a convenience sample of lactation professionals in the New England area, and the only demographic information collected was their profession. It will be important to survey lactation professionals from other regions in order to generalize the results, characterize recommendations by region, and examine the potential influence that characteristics like age and number of years in lactation practice play on provider recommendations.

Despite these limitations, this study is the first attempt at characterizing the recommendations lactation professionals make to women who use marijuana and breastfeed and to estimate the prevalence of this issue. The results indicate that recommendations on this topic are not uniform and that this health issue is relatively common. As such, lactation professionals could benefit from more guidance on this topic, informed by additional research.

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### Disclosure Statement

No competing financial interests exist.

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