



ARTICLE

# Experiences, Opinions, and Use of Complementary and Alternative Medicine Among Alberta Midwives

*Les sages-femmes albertaines et les médecines complémentaires et alternatives : expérience, opinions et utilisation*

Chinelo Oguaju, BPharm, MSc, Deborah Dewey, PhD, Gregor Wolbring, PhD, Gisela Becker, RM, MA, and Stacey Page, PhD

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## ABSTRACT

**Background:** Complementary and alternative medicines [CAMs] are widely used by individuals in many parts of the world to treat different ailments and maintain good health. Midwives are maternity care providers who may recommend or provide CAMs to assist clients with their pregnancies and childbirth and the early neonatal health of infants. There are currently no provincial data on the recommendation and use of CAMs by Alberta midwives.

**Objectives:** To describe the use, experiences, and opinions of Alberta midwives about CAMs, as well as their self-reported educational needs relating to CAM.

**Method:** A descriptive cross-sectional survey was distributed to all midwives registered with the Alberta Association of Midwives.

**Result:** The response rate to the survey was 23.7% and the completion rate was 82.7%. About 90% of the participating midwives recommended CAM, and 45.8% provided CAM very often to their clients. Client preferences and scientific evidence of efficacy were the most commonly stated reasons for recommending CAM. More than two-thirds [70.8%] of respondents believed that they lacked adequate CAM education.

**Conclusion:** CAM was frequently recommended by the midwives who participated in this study. However, the majority of the participants indicated that they lack adequate knowledge and education in regard to CAM. Consequently, providing more CAM education opportunities for midwives may be justified.

## KEYWORDS

complementary and alternative medicine, midwives, pregnancy, women

*This article has been peer reviewed.*

## RÉSUMÉ

**Contexte :** Dans de nombreuses régions du monde, des personnes recourent largement à des médecines complémentaires et alternatives [MCA] pour traiter une diversité de maladies et se maintenir en santé. Les sages-femmes sont des fournisseuses de soins de maternité susceptibles de recommander des MCA afin d'aider leurs clientes durant leur grossesse, lors de l'accouchement et, pour la santé de leur nourrisson, au début de la période néonatale. Il n'y a actuellement aucune donnée provinciale sur la recommandation et l'utilisation des MCA par les sages-femmes albertaines.

**Objectifs :** Décrire l'utilisation des MCA par les sages-femmes albertaines, leur expérience et leurs opinions à ce sujet, ainsi que leurs besoins éducatifs autodéclarés concernant ces médecines.

**Méthode :** Une enquête descriptive transversale a été distribuée à toutes les sages-femmes inscrites auprès de l'Alberta Association of Midwives.

**Résultat :** Le taux de réponse à l'enquête est de 23,7 %, tandis que celui d'achèvement est de 82,7 %. Environ 90 % des sages-femmes participantes recommandent des MCA et 45,8 % en fournissent très souvent à leurs clientes. Les préférences des clientes et les preuves scientifiques d'efficacité constituent les raisons les plus souvent invoquées pour la recommandation de MCA. Plus des deux tiers [70 %] des répondantes estiment manquer de formation adéquate sur ces médecines.

**Conclusion :** Les sages-femmes qui ont participé à l'étude recommandent souvent des MCA. Toutefois, la majorité des répondantes ont fait part de leur manque de connaissances et de formation sur ces médecines. Il pourrait donc être justifié d'offrir plus de possibilités de formation sur les MCA aux sages-femmes.

## MOTS-CLÉS

médecine complémentaire et alternative, sages-femmes, grossesse, femmes

*Cet article a été évalué par un comité de lecture.*

## INTRODUCTION

Complementary and alternative medicine consists of a wide range of health care systems, products, and practices that are not considered part of conventional medicine.<sup>1</sup> Complementary and alternative medicine (CAM) includes massage therapy, hydrotherapy, hydrotherapy, nutritional supplements (vitamins, minerals, and probiotics); herbal remedies (botanicals); homeopathic medicine; acupuncture (the use of needles and pins); acupressure (the use of firm pressure); chiropractic; aromatherapy (aroma extracts and essential oils); and relaxation techniques such as yoga, hypnosis, and meditation.<sup>1,2</sup> Individuals use CAM for a variety of reasons, including symptomatic relief of minor and self-limiting illness, disease prevention, stress reduction, health maintenance.<sup>3,4</sup> Other reasons concern drug side effects, dissatisfaction with medical outcomes, and lack of control over care.<sup>5</sup> According to the Public Health Agency of Canada, more than 70% of Canadians regularly use CAM to improve their quality of life.<sup>6</sup>

Studies have reported that health professionals often lack the knowledge, confidence, and education needed to provide guidance to patients who are using CAM.<sup>7,8</sup> Hall and colleagues noted that midwives in particular are not educated regarding the risks and benefits of CAM, although they continuously play a role in mediating of CAM use among clients.<sup>8</sup> The widespread popularity of CAM has brought attention to a deficient knowledge among health care professionals and a communication gap between them and their patients in regard to CAM, both of which negatively affect the ability of health care professionals to counsel patients.<sup>7</sup> Without a firm knowledge base in CAM, health care professionals are poorly positioned to offer advice or monitor patients who choose to use CAM. Given that the majority of CAMs are available over the counter to consumers,<sup>9</sup> they are often used without professional oversight, potentially compromising patient safety and well-being.<sup>10</sup>

Midwives are a distinct group of professionals who provide maternity care to women and maintain neonatal health during the first 6 weeks of life.<sup>11</sup> The clients of midwives may choose to use CAM to help their pregnancies and childbirth and to promote

early neonatal health. Midwives may recommend or provide a variety of CAMs. Despite a high prevalence of CAM use among pregnant women,<sup>6,12</sup> few studies have described its use by midwives. Data on the experiences and practices of midwives with respect to CAM use by their clients are currently limited. Given the essential role that midwives can play in maternal and neonatal health<sup>11,13</sup> and because an increasing number of women who demand or use CAM are opting to be cared for and having childbirth with the assistance of midwives in Alberta and Canada,<sup>14,15</sup> assessing midwives' knowledge and experiences of CAM is important.

This study examined the prevalence and types of CAM therapies recommended and provided by midwives in Alberta. It also explored the knowledge, attitudes, motivation, and perceived educational needs of midwives regarding CAM. The study received approval from the Conjoint Health Research Ethics Board at the University of Calgary (REB16-1885).

## METHOD

A web-based survey developed in the application REDcap [Research Electronic Data Capture] was used to collect data. The survey included 33 fixed-choice and eight open-ended questions related to the study's aims and to basic sociodemographic information. No direct identifiers were captured, and participants were assured their responses would remain confidential. Consent was implied by survey completion.

Survey development was informed in part by three existing instruments: the Integrative Medicine Attitude Questionnaire (IMAQ), the CAM Health Belief Questionnaire (CHBQ), and the University of California Irvine Survey of Health Care Use and Practice,<sup>16-18</sup> as well as by review of the relevant literature.

A draft survey was examined for content validity and feasibility by a midwife, a postpartum nurse, and a maternity physician, using cognitive interviews.<sup>19</sup> Revisions were based on consensus among the research team.

The study population consisted of members of the Alberta Association of Midwives (N = 101). The survey link was disseminated through the

**Table 1.** Social Demographics and Characteristics of Participating Midwives by Percentage and Proportion

Characteristics	Category	Percentage (n=24)
Social Demographics	Female gender	100% [24/24]
	Age [years]	
	<ul style="list-style-type: none"> <li>• 20-39</li> <li>• 40-49</li> <li>• ≥ 50</li> </ul>	33.3% [8/24] 41.7% [10/24] 25.0% [6/24]
Education Characteristics	Country of Education	
	<ul style="list-style-type: none"> <li>• Canada</li> <li>• Other</li> </ul>	54.2% [13/24] 45.8% [11/24]
Practice Characteristics	Highest education level	
	<ul style="list-style-type: none"> <li>• Diploma</li> <li>• Undergraduate degree</li> <li>• Postgraduate degree</li> </ul>	12.5% [3/24] 66.7% [16/24] 20.8% [5/24]
	Location	
Practice Characteristics	<ul style="list-style-type: none"> <li>• Urban</li> <li>• Rural</li> </ul>	5.0% [18/24] 25.0% [6/24]
	Years of Practice	
	<ul style="list-style-type: none"> <li>• &lt; 5</li> <li>• 5-10</li> <li>• 11-20</li> <li>• &gt; 20</li> </ul>	58.0% [14/24] 20.8% [5/24] 8.3% [2/24] 12.5% [3/24]
Practice Characteristics	Category	
	<ul style="list-style-type: none"> <li>• Full-time [40 courses of care]</li> <li>• Part-time [19 courses of care]</li> </ul>	87.0% [20/23] 13.0% [3/24]

Association of Alberta Midwives' online newsletter, which published six invitations at two-week intervals. Midwifery practices were also approached directly in an effort to boost the response rate, and follow-up phone contact was made with 15 clinics. The invitation and survey link were sent directly to midwifery clinics that could not be reached by phone and that had a publicly available e-mail address.

The data were summarized by use of proportions. Textual responses to open-ended questions were summarized by content analysis.<sup>20,21</sup>

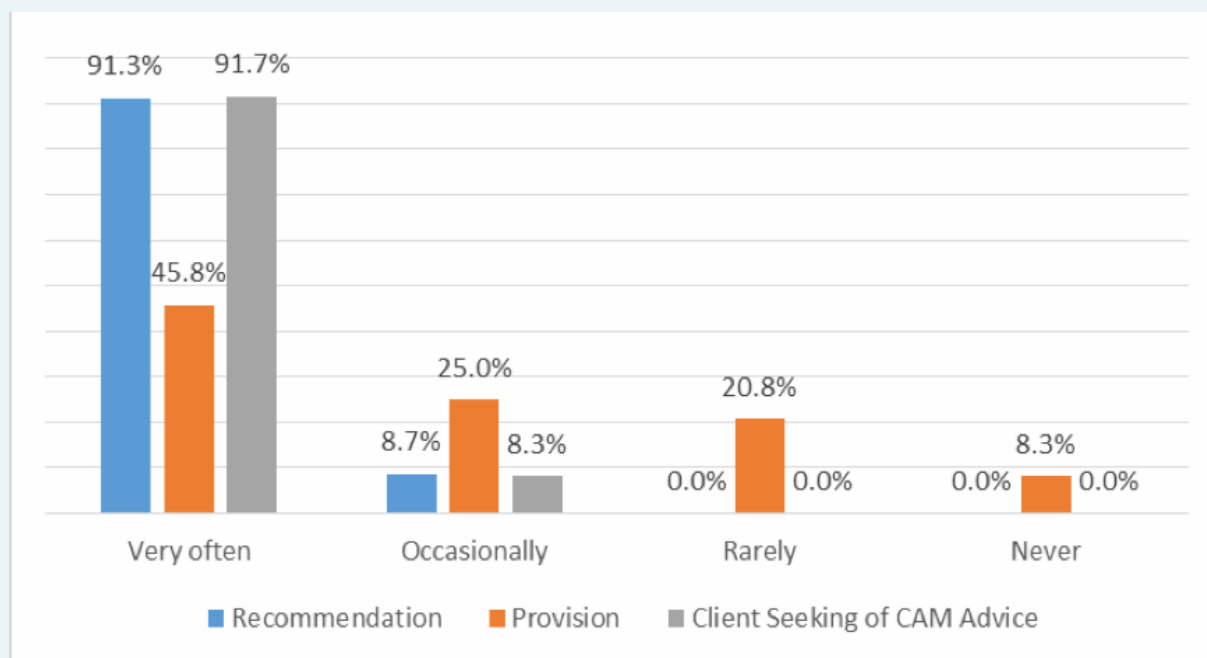
## RESULTS

Twenty-nine midwives in Alberta clicked on the survey link and consented to participate. Of these 29 midwives, 24 completed the survey [completion rate, 82.7% [24/29]; response rate, 23.7% [24/101]]. Survey completion was anonymous.

### Demographics

Sociodemographics are presented in Table 1. All respondents were female. The majority were 40 to 49 years of age and were English-speaking persons.

**Figure 1.** Percentage of CAM Recommendation, CAM Provision, and Clients Seeking CAM Advice



CAM, complementary and alternative medicine

### Prevalence of Provision and Recommendation

The degree to which participating midwives recommended, provided, or had clients seek advice about CAM is shown in Figure 1. All midwives recommended CAM to some degree. Slightly more midwives [45.8%] reported providing CAM very often, 25.0% provided CAM occasionally, 20.8% provided CAM rarely, and 8.3% had never provided CAM. Survey participants were asked how often their clients sought their advice about CAM. All participants indicated that their clients sought such advice either very often [91.7%] or occasionally [8.3%].

Survey respondents were asked which CAMs they have recommended and which they have provided [Table 2].

### Rationale and Motivation for Use

Participants who reported that they very often or occasionally recommend CAM were asked why they did so [Table 3]. Clients' suggestions or preferences were the most common reasons for recommendations, followed closely by scientific

evidence of efficacy.

Participants were asked where and from whom they believed their clients purchased CAM products [Figure 2]. Most commonly identified were CAM practitioners [such as chiropractors and naturopaths] [91.7% [22/24]], pharmacies [83.3% [20/24]], and retail stores [83.3% [20/24]].

### Indications for Use

Participants were asked to identify the pregnancy, childbirth, or neonatal indications for the use of CAMs, as well as the corresponding CAM that they would recommend or provide [Table 4]. Thirteen participants provided information on other pregnancy-related conditions and the CAMs that were recommended [Table 5]. Other conditions for which CAMs were used included sciatica, varicose veins, carpal tunnel syndrome, head colds, flu, constipation, prevention of group B streptococcus infection, and swelling in the hands and feet. However, the specific types of CAM used for these indications were not named.

*continued on page 27...*

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# HUMANITIES

## Ricardo Sternberg

Ricardo Sternberg was born in Rio de Janeiro, Brazil in 1948 and moved to the United States with his family when he was fifteen. He received a B.A. in English literature from the University of California, Riverside and a M.A. and Ph.D. in Comparative Literature from UCLA. Between 1975 and 1978, he was a Junior Fellow with the Society of Fellows at Harvard University. His poetry has been published in magazines such as *The Paris Review*, *The Nation*, *Poetry* (Chicago), *Descant*, *American Poetry Review*, *The Virginia Quarterly* and *Ploughshares*. *Vehicule Press* (Montreal) published *The Invention of Honey* (1990, republished 1996), *Map of Dreams* (1996) and McGill-Queen's University Press published *Bamboo Church* (2003, republished 2006) and *Some Dance* (2014). Cyclops Press released a CD of his readings, *Blindsight*, in 1998. He was awarded the Ordem do Rio Branco from the Brazilian Government in 2018.

Ricardo is the husband of Christine Sternberg, midwife Emeritus, who practiced in Toronto for many decades. He has recent work in *The Windsor Review* and *The Columbia Journal* and a poem in the current issue of *The Walrus*.

Website: [ricardosternberg.com](http://ricardosternberg.com)

"A Prince's Soliloquy" is from *Some Dance* (McGill-Queen's University Press 2003).

A rare photo of Ricardo and Chris Sternberg from years gone by.



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# ANA LOUCA

by Ricardo Sternberg

Antic prone and crazy  
breast-feeding her dolls  
through the streets  
or on Sundays marooned  
by herself in a pew,  
she offered her litany  
of curses and profanities  
to no one in particular.  
Thursdays she would come  
demanding that which habit  
had made hers by right:  
the warmed leftovers  
she wolfed down, standing  
against the green backdoor.  
Finished, she rattled thanks  
from the gates and was gone.  
A packing crate her bedroom,  
she slept by the docks.  
Amid rags and broken dolls,  
asleep and for once, quiet,  
a grizzled girl  
lulled by the ocean's rhythm  
as if cradled in its blue arm.

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# SHEERAZ

by Ricardo Sternberg

*Who does Sheherazade enthrall?*

Christopher Logue

Sheeraz came to my room, sat on my bed,  
began to tell me some crazy story:  
Rodrigo's dog had beheaded a chicken  
and then gone missing. Rodrigo had  
accused the neighbor whose chicken was killed  
of having done something to his poor dog.

Done with my prayers, I wanted peace.  
Wanting to fall asleep, I closed my eyes.  
When I opened them she was still at it:  
Rodrigo had reached out to distant allies;  
but so had the other side.  
But by then I was only half listening

having noticed how artful nature had been  
in placing that brown mole above and  
to the left of her lips. I closed my eyes.  
All her words became but a distant din  
and I must have fallen asleep. I dreamt  
of a man who could not abide conclusions,

who saw, in every story's end, his own.  
Within my dream this man came to see  
that all the stories ever told  
were off-shoots from an original tale:  
A woman undoes by night the net she knit  
by daylight, then starts knitting again;

a man forges small fish out of gold,  
then melts them down and starts anew.  
Caught in her silver net his gold fish  
escape only to be caught again.  
When I awoke wind rattled the windows,  
Sheeraz was gone, her voice become the rain.



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# A PRINCE'S SOLILOQUY

by Ricardo Sternberg

Truth be told,  
I wish she would  
unkiss me,

turn me back  
into the frog I was  
and happy being.

Give me back nights  
I dared the moon,  
fat and round,

to step down  
and skinny dip  
until dawn.

My velvet britches?  
This silver crown?  
Nothing here even close

to those moments  
when she dropped her cloak,  
tested the waters

with her toes  
then slipped in and silvered  
my dark pond.

**Table 2.** Percentages and Proportions of Participant Midwives Who Recommended or Provided Specific Types of Complementary and Alternative Medicine

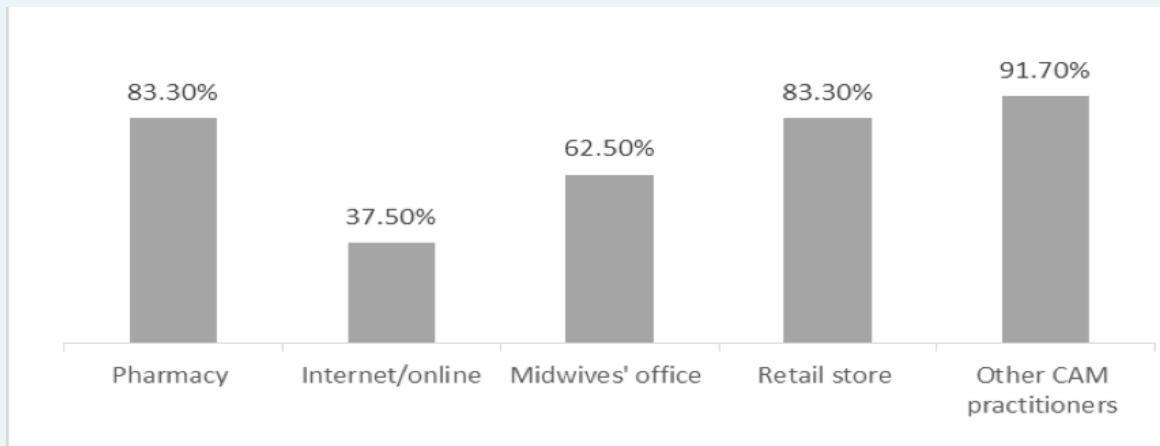
<b>CAM Type</b>	<b>Recommended</b>	<b>Provided</b>
Massage therapy	100.0% [24/24]	12.5% [3/24]
Nutritional supplements	100.0% [24/24]	8.3% [3/24]
Herbal remedies	100.0% [23/23]	13.0% [3/23]
Homeopathy	90.0% [18/20]	65.0% [13/20]
Chiropractic	100.0% [23/23]	0.0% [0/23]
Aromatherapies	85.7% [12/14]	50.0% [7/14]
Acupuncture	100.0% [24/24]	0.0% [0/24]
Acupressure	88.2% [15/17]	52.9% [9/17]
Yoga	100.0% [22/22]	0.0% [0/22]
Meditation	100.0% [15/15]	6.7% [1/15]
Hypnosis	100% [15/15]	13.3% [2/15]
Hydrotherapy	95.5% [21/22]	59.1% [13/22]

CAM, complementary and alternative medicine

**Table 3.** Midwives' Reasons for Using or Recommending Complementary and Alternative Medicine

<b>Reason</b>	<b>Percentage (Proportion)</b>
Client suggestion or preference	95.7% [22/23]
Scientific evidence of efficacy	91.3% [21/23]
Philosophy of keeping prenatal, labour/birth and postpartum care normal	73.9% [17/23]
Personal experience	69.6% [16/23]
Personal conviction	34.8% [8/23]
Other—qualification of midwife	4.3% [1/23]

**Figure 2.** Where Clients of Alberta Midwives Purchase CAMs



CAM, complementary and alternative medicine

### **Ineffective CAMs**

Sixteen midwives commented on an open-ended question about CAMs they consider ineffective. Ten participants indicated that homeopathy does not work in many instances. Three midwives reported that although homeopathy is ineffective, they still suggested its use because they believed in the placebo effect and because they believed homeopathy to involve a low risk. One of the respondents said she suggests homeopathy because her clients believe that it works. Another stated that although the efficacy of homeopathy has not been proven, the efficacy of placebo has been proven. Aromatherapy was described as ineffective by three midwives. Whereas three midwives opined that no CAMs are known to be ineffective, another midwife stated that the efficacy of CAMs varies from client to client. The following responses illustrate this assertion.

While most CAM products/practices are evidence based, homeopathic and aromatherapies are not always, either due to lack of research or inconclusive findings, to my knowledge.

...Sometimes these things work, even when we don't know why, and that even if it is just placebo effect, there is

a lot of evidence to support the efficacy of placebo effect.

I don't actually think that homeopathies are effective unless the woman really believes they help (I do believe in the placebo effect!), so I recommend them usually only when the woman asks first or after chatting a bit about how they feel about them.

### **Level of Education in CAM**

Participants were asked to describe their education in CAM during their formal midwifery training. Some midwives reported having received pregnancy-related education on specific CAMs, their application, their safety, and any associated research or lack thereof. The participants reported having been educated in the following types of CAM during formal midwifery training:

- Hydrotherapy
- Touch and massage
- Nutritional supplementation
- Acupuncture
- Hypnosis and meditation
- Aromatherapy
- Chiropractic
- Herb therapy
- Homeopathy

**Table 4.** Indications for the Recommended Types of Complementary and Alternative Medicine

Indication	Types of Complementary and Alternative Medicine												
	Massage Therapy	Nutritional	Herbal Remedy	Homeopathy	Chiropractic	Aromatherapy	Acupuncture	Acupressure	Yoga	Meditation	Hypnosis	Hydrotherapy	
	N = 22	N = 24	N = 22	N = 20	N = 23	N = 16	N = 24	N = 17	N = 22	N = 16	N = 13	N = 22	
<b>Labour preparation</b>	27.3% [6/22]	41.7% [10/24]	86.4% [19/22]	100.0% [20/20]	69.6% [16/23]	56.3% [9/16]	100.0% [24/24]	58.8% [10/17]	40.9% [9/22]	56.3% [9/16]	69.2% [9/13]	54.5% [12/22]	
<b>Anxiety and stress</b>	63.6% [14/22]	37.5% [9/24]	50.0% [11/22]	55.0% [11/20]	13.0% [3/23]	81.3% [13/16]	50.0% [12/24]	23.5% [4/17]	95.5% [21/22]	100.0% [16/16]	69.2% [9/13]	77.3% [17/22]	
<b>Pain</b>	90.9% [20/22]	45.8% [11/24]	18.2% [4/22]	50.0% [10/20]	95.7% [22/23]	18.8% [2/16]	70.8% [17/24]	29.4% [5/17]	72.7% [16/22]	18.8% [3/16]	23.1% [3/13]	100.0% [2/22]	
<b>Lactation problems</b>	4.5% [1/22]	91.7% [22/24]	86.4% [19/22]	45.0% [9/20]	13.0% [3/23]	---	12.5% [3/24]	11.8% [2/17]	4.5% [1/22]	18.8% [3/16]	7.7% [1/13]	13.6% [3/22]	
<b>Anemia</b>	---	100% [24/24]	50.0% [11/22]	15.0% [3/20]	---	18.8% [3/16]	4.2% [1/24]	---	---	---	---	---	
<b>Malpresentation</b>	18.2% [4/22]	4.2% [1/24]	13.6% [3/22]	80.0% [16/20]	82.6% [19/23]	6.3% [1/16]	87.5% [21/24]	52.9% [9/17]	18.2% [4/22]	12.5% [2/16]	7.7% [1/13]	18.2% [4/22]	
<b>Perineal discomfort</b>	18.2% [4/22]	---	40.9% [9/22]	30.0% [6/20]	13.0% [3/23]	---	12.5% [3/24]	---	9.1% [2/22]	6.3% [1/16]	7.7% [1/13]	63.6% [14/22]	
<b>Prevent birth</b>	---	87.5% [21/24]	4.5% [1/22]	---	---	---	---	---	---	6.3% [1/16]	---	---	
<b>Nausea and vomiting</b>	---	95.8% [23/24]	59.1% [13/22]	50.0% [10/20]	4.3% [1/23]	68.8% [11/16]	66.7% [16/24]	47.1% [8/17]	---	12.5% [2/16]	7.7% [1/13]	4.5% [1/22]	
<b>Heartburn</b>	---	87.5% [21/24]	45.5% [10/22]	40.0% [8/20]	4.3% [1/23]	6.3% [1/16]	29.2% [7/24]	17.6% [3/17]	---	6.3% [1/16]	---	---	

**Table 5.** Other Indications for Recommended Complementary and Alternative Medicine

CAM Type	Indications
Nutritional supplements	Sleep disturbances UTIs Cholestasis Hemorrhoids
Aromatherapy	Gas
Homeopathy	Aiding in shortening labour and making labour easier Hemorrhoids
Craniosacral therapy	Poor latch
Herbal therapy (e.g., dandelion root)	Pregnancy and postpartum PUPPS or rash
Placenta encapsulation	Risk of PPD
Pelvic floor physiotherapy	Perineal pain, prolapse, incontinence
Spinning Baby techniques and Miles circuit	To rotate occiput posterior baby or breech baby

CAM, complementary and alternative medicine; PPD, postpartum depression; PUPPS pruritic urticarial papules and plaques; UTIs, urinary tract infections

Several midwives stated that such information, when provided, was cursory. The nature of the education entailed a mere mention of CAM modalities during basic lectures or classes or during other core courses such as pharmacotherapy and pathophysiology. As stated by one participant, “Our course on pathophysiology included a brief portion on homeopathy and herbals.” Some said their CAM education stemmed from their experience, either self-taught or from other colleagues: “We did a unit on alternative remedies during our pharmacology class. Most of the education comes from experience in preceptorships and self-guided learning.” A few participants stated that they had significant education in CAM (e.g., from university-level courses or specific CAM certifications).

When participants were asked to rate the

extent of the CAM education they received in their midwifery programs, 54.2% [13/24] of the responding midwives believed they had obtained a moderate education, 16.7% [4/24] thought their education had been adequate or sufficient, and 29.2% [7/24] believed their education had been poor. When asked whether they thought that midwives lacked adequate education in the use of CAM, most of the participants (70.8% [17/24]) answered “yes” whereas 29.2% [7/24] answered “no.”

#### **Additional CAM Information and Education**

Although 70.8% [17/24] of respondents noted that they lacked adequate education in CAM, the same percentage and proportion believed they could provide CAM counselling to their clients. Educational recommendations from responding

midwives included the provision of evidence-based guidelines for CAM use, research-based learning opportunities, full CAM courses and class learning, continuing education courses, modules, workshops and the obtaining of qualifications in the therapies used. One midwife suggested that such education should entail updated knowledge and increased information on indications for usage, benefits, risk, potential interactions, and the science behind the efficacy of each modality. The participants desired more education in homeopathy, herbal remedies, chiropractic, acupuncture, nutritional supplements, aromatherapy, and meditation.

### **Integration of CAM into Midwifery**

All responding midwives supported the integration of information about CAM into midwifery education. They suggested a full course on CAM in midwifery programs in order to enhance in-depth learning about CAM and increase both knowledge and skills. Respondents believed that the more a midwife knew about CAM, the more it would be integrated into practice. The inclusion of CAM counselling in a practice was believed to be congruent with the philosophy that pregnancy and birth are normal physiologic events—a fundamental principle of midwifery.

## **DISCUSSION**

In general, responding midwives held positive opinions toward the use of CAM, demonstrated by the majority of respondents' both recommending and providing such therapies to some extent. Respondents believed that more education for midwives about CAM would be valuable.

### **Extent of Use**

Consistent with previous findings, the rate of CAM recommendation was high, and midwives were more likely to recommend CAMs than to provide them.<sup>22, 23</sup> Chiropractic care, acupuncture, and yoga were not provided by any of the respondents, but homeopathy, hydrotherapy, acupuncture, herbal remedies, nutritional supplements, and aromatherapy were. This was likely due to the additional training required for practicing chiropractic, acupuncture, and yoga.

We investigated the indications for the various CAMs recommended or provided by midwives.

Whereas nutritional supplements were most commonly indicated for anemia, the CAMs that were most frequently used for breastfeeding and lactation problems were herbal remedies. Massage therapy, chiropractic, and hydrotherapy were mostly indicated for pain management. Acupuncture, homeopathy, and herbal remedies were most frequently used for labour preparation. Yoga, meditation, and aromatherapy were most popular for addressing anxiety and stress.

Respondents noted that most clients purchase CAMs from complementary and alternative practitioners (e.g., chiropractors and naturopaths) and from retail stores. Because the products are often available from sources (e.g., retail stores and the Internet) that may lack professional oversight—unlike their pharmaceutical counterparts, which are sold and administered in regulated environments (i.e., pharmacies)—consumers are potentially at risk if the use of these products is not monitored. Participants also reported that their clients purchased products from midwifery practices. This raises possible concerns about conflict of interest, as midwives may be perceived as encouraging the purchase of CAM products to increase revenue.<sup>24</sup> Clients, in turn, may feel obliged to buy products in an effort to not offend their care providers.<sup>24, 25</sup> A code of professional conduct requires midwives to act in the best interest of their patients, and a potential conflict of interest is presented when health professionals sell products directly. Regulatory guidance might help midwives navigate sales of CAM products to their clients.

### **Motivation for Use**

The most frequent reason given for recommending CAM was client suggestion or preference. This reason resonates with the underlying philosophy of midwifery, which emphasizes support for women's choices in the care process and enhances midwives' professional autonomy.<sup>22</sup> In nursing, "professional autonomy" has been described as practitioners' knowing their patients and having a holistic view of their care.<sup>26, 27</sup> The International Code of Ethics of Midwives states that the relationship between midwife and client should be such that the midwife respects the client's autonomy and supports the client's role in decisions affecting her care.<sup>28</sup> The findings of this study indicate that a large percentage

of Alberta midwives respect their clients' autonomy and their wishes for the inclusion of CAM in their care.

Scientific evidence of efficacy was another reason for recommending CAM. This reason aligns with the ethical guidelines for CAM use by health professionals, which states that only safe, effective CAMs be used in patient care.<sup>29-31</sup> Generally, the responding midwives appeared to understand this philosophy and to practice in accord with it, most reporting that evidence of efficacy informed their decision to use CAM.

One of the notable reasons participants gave for recommending CAM was to keep prenatal, labour and birth, and postpartum care normal or natural. This is consistent with the fundamental philosophy of the midwifery profession and with midwifery practice, which often does not incorporate "artificial" interventions into patient care.<sup>22,26,32,33</sup> This reason for recommending CAM fits the perception that CAM is often natural and safe and has a lower incidence of side effects.<sup>34-36</sup> This idea is not necessarily true, and it is important to use CAM knowledgeably.<sup>37</sup>

### **Midwives' Experiences Regarding the Effectiveness of CAM**

Despite participants' reporting that there was no evidence of efficacy for homeopathy and aromatherapy, some respondents still prescribed them, either (1) because their clients requested those therapies or (2) because they believed in the placebo effect and believed that using those therapies posed no risk. The ethics of prescribing a treatment that is believed to be ineffective are similar to the ethics of placebo use, and the integrity of the practitioner could be called into question.<sup>38-40</sup> For CAM recommendations to be ethical, only effective and safe treatments should be advanced.<sup>31</sup>

That some respondents reported prescribing CAM therapies that they believed lacked efficacy but met safety criteria suggests that these midwives were not adhering to one of the two main principles of CAM recommendation. Only limited information exists on the regulations and scope of practice for midwives in regard to CAM, perhaps because midwives are not licensed CAM practitioners or because the inclusion of CAM in the care they provide is in addition to their primary scope of practice. The College of Midwives

of Ontario standards for the inclusion of CAM into midwifery practice requires that the midwife have sufficient knowledge, judgement, and skills to use CAM. If these are lacking, the midwife should refer clients to qualified health practitioners.<sup>41</sup> Midwives are also advised to have a "practice protocol" for CAM, but the specific requirements of such a protocol are not defined.<sup>41</sup> Some respondents used ineffective CAM therapies because their clients were comfortable with them. This practice is contrary to the standards of the College of Midwives of Alberta, which requires that when a client requests care that does not meet the standard of practice or that the midwife deems unsafe, the midwife must inform the client of these judgements and their reasons.<sup>42</sup>

### **Midwives' Education in CAM**

Most midwives agreed that they lacked adequate education in CAM, which raises questions and concerns about their ability to adequately counsel and monitor clients. The respondents recommended further CAM education and the development of practice guidelines. This gap between knowledge and practice indicates that more opportunities for education in CAM need to be provided to midwives. Policies aimed at reviewing and expanding the midwifery curriculum in Alberta and Canada to include more education in CAM is of paramount importance to the development of better-informed practitioners. The regulatory college may need to stress the importance of continuing education in CAM and possibly make continuing education a requisite for members' annual licence renewals. Further, midwives need to routinely seek additional education in CAM to supplement that received in their midwifery training.

### **STRENGTHS AND LIMITATIONS**

This is the first study that has attempted to describe the use of CAM by midwives in Alberta. It took a population-based approach and used multiple follow-up methods to enhance the response rate. The results of this study are limited by its low response rate and its one-province population.

### **CONCLUSION**

Few studies have described the use of CAM among midwives, even though midwives

recommend or provide CAM frequently. Given that the amount of CAMs recommended by midwives was very high among respondents in Alberta and that respondents felt a need for more knowledge of CAM, increased educational opportunities (in the standard curriculum or as continuing education) are warranted.

## FUTURE DIRECTIONS

Future studies should examine clients' perceptions of CAM and evaluate the safety and effectiveness of the most commonly used CAMs for maternity and postnatal care.

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## **AUTHOR BIOGRAPHIES**

**Chinelo Oguaju** is associated with the Department of Community Health Sciences in the Cumming School of Medicine at the University of Calgary.

**Deborah Dewey** is a professor at the Department of Paediatrics & Department of Community Health Sciences at the Cumming School of Medicine at the University of Calgary.

**Gregor Wolbring** is an associate professor in the Department of Community Health Sciences at the Cumming School of Medicine at the University of Calgary.

**Gisela Becker** is Midwifery Consultant with the Health Workforce Planning Division, Department of Health and Community Services, in St. John's, Newfoundland.

**Stacey Page** is an associate professor in the Department of Community Health Sciences at the Cumming School of Medicine, University of Calgary.