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# Midwives' personal views and beliefs about complementary and alternative medicine (CAM): A national survey

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ABSTRACT

Complementary and Alternative Medicine/Therapies (CAM) options have increasingly been used by pregnant women, however literature describing midwives' views and beliefs towards CAM is sparse. This study aimed to investigate Australian midwives' views and beliefs about CAM.

*Methods:* A national survey of Australian College of Midwives midwife members (n = 3552) (UTSHREC 2015000614) included questions on midwives' views and support of CAM, and beliefs using a validated CAM Health Belief Questionnaire (CHBQ).

*Results:* The response rate was 16%. Most respondents believed women should have the right to choose CAM (93.3%); and didn't view CAM a threat to public health (91.7%). Nearly half (49.5%) believed that their hospital/service did not have guidelines/procedures on CAM. The CHBQ mean score was 45.43 (SD9.98).

*Conclusion:* Most respondents agreed with the fundamental beliefs of CAM. This study confirms the need for a national CAM policy for midwives; and research on midwives' CAM training.

## 1. Introduction

The use of complementary and alternative medicine (CAM) has risen in popularity in recent years in Australia and internationally, with a recent name change to Complementary and Integrative Health (CIH) [1]. CAM or CIH can be describe as a group of diverse health care systems, practices, and products that are not generally considered part of (Western) conventional medicine [1]. There is increasing interest from women during pregnancy, labour and postpartum (the perinatal period) in the use of CAM modalities such as aromatherapy, acupuncture, massage, herbs and vitamins/minerals [2–8]. Pregnant women are choosing CAM as they perceive it provides more choice, control and autonomy in their health care decision making [4,9,10]. Whilst it is known that CAM is widely used by pregnant women and recommended by midwives, less is known about midwives' views and beliefs towards CAM.

Midwives play an important role in the health and education of women during the perinatal period. Several studies have revealed that midwives perceive CAM as either an alternative to medical intervention or, complementary to conventional medicine, and an additional avenue towards empowering women and increasing women's autonomy [11–14]. These views align with core principles of midwifery that promote childbirth as a normal and natural process and integral to this process, that midwives play an important role in facilitating support and choice for women [9,14].

There is a paucity of research focusing on the attitudes and views of midwives about CAM with only three studies found worldwide [14–16]. One study conducted over 10 years ago, reported that midwives from the state of South Australia have a positive view of CAM, perceive CAM as natural and effective in stimulating the body's natural healing power, and do not view CAM as a threat to public health [16]. Harding and Foureur's (2009) study of 171 New Zealand and 172 Canadian midwives found that the majority of midwives agreed with the statements, that CAM: supports normal birth; is an essential part of midwifery and enhances midwifery care; is often used to avoid medical intervention; and is not considered an intervention [14]. The only study using a validated tool (CAM Health Belief Questionnaire -CHBQ) and the 3rd study found, surveyed 173 nurse-midwives in Israel and discovered that the majority of respondents strongly agreed with many of the fundamental tenets of CAM: belief in the existence of an underlying energy/life force, concept of self-healing, importance of integrating patients' expectations, health beliefs and values into the patient care process [15]. More than half of the midwives agreed with the statement that CAM stimulates the body's natural therapeutic powers (57%) and the

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**Table 1**
Midwives' personal views of CAM.

| | Statements | *Strongly disagree/Disagree % (n)* | *Neither/Unsure % (n)* | *Strongly agree/Agree % (n)* |
|---|---|---|---|---|
| 1 | CAM is an important aspect of my own/family healthcare (n = 505) | 15.4 (88) | 3.4 (19) | 81.2 (398) |
| 2 | Women should have the right to choose between conventional treatments and CAM strategies in healthcare (n = 504) | 2.1 (12) | 4.6 (22) | 93.3 (470) |
| 3 | Women should be adequately informed about the CAM strategies that can be used safely in pregnancy (n = 504) | 0.7 (4) | 2.9 (14) | 96.4 (486) |
| 4 | CAM strategies can be used as a complement in conventional healthcare (n = 504) | 1.4 (8) | 3.8 (18) | 94.8 (478) |
| 5 | All midwives should have the knowledge on commonly used CAM used during the perinatal period (n = 505) | 2.1 (12) | 5.2 (25) | 92.7 (468) |
| 6 | All midwives should receive education of CAM strategies during their undergraduate curriculum (n = 501) | 3.0 (17) | 5.6 (26) | 91.4 (458) |
| 7 | My hospital/service has guidelines/procedures on the use of CAM (n = 525) | 49.5 (260) | 6.5 (34) | 44.0 (231) |
| 8 | I feel supported in my organisation to recommend self-help strategies (n = 527) | 32.3 (170) | 14.4 (76) | 53.3 (281) |
| 9 | I feel supported in my organisation to recommend CAM strategies (n = 525) | 40.8 (214) | 11.6 (61) | 47.6 (250) |

majority (85.3%) did not agree that CAM poses a threat to public health [15]. With only two national studies published, there is a need for further research exploring midwives' views and beliefs about CAM on a national scale using a validated tool. One of the objectives of this national study was to explore the personal views and beliefs of midwives in Australia towards CAM.

## 2. Methods

### 2.1. Sample

The national survey including sample size, recruitment, survey design and data analysis have been previously published by the authors [17]. In summary, a specially designed survey was distributed to 3552 members of the Australian College of Midwives (ACM) who represent 35.5% of the Australian midwifery workforce. Midwives either responded to an invitation to participate via four ACM e-bulletins posted in the 2015–2016 financial year or completed a hard paper copy of the survey that was available to midwives attending a national ACM conference in October 2015 (UTS HREC 2015000614). The sample size for the study was calculated at 375 to have statistical power (5% margin of error and 95% confidence).

### 2.2. Survey tool

As described in the previous publication [17], a comprehensive survey was developed by the research team, based on the literature, the author's comprehensive clinical midwifery experience, extensive CAM research expertise of one author and study findings from focus groups conducted with local midwives regarding CAM [10]. The section on midwives' personal views on CAM included questions from the literature [14,16,18] and consisted of six questions using a five point, Likert type rating scale (in which 1 equals 'strongly disagree' and 5 equals 'strongly agree'). The survey also included the third section of the 'Complementary and Alternative Medicine Health Belief Questionnaire' (CHBQ) which consists of ten items that evaluate respondents' attitudes towards CAM using a 7 point, Likert type rating scale (in which 1 equals 'absolutely disagree' and 7 equals 'absolutely agree') [15,19]. Items 6–8 are worded negatively to minimise the acquiescence response set, requiring scores of these questions to be reversed prior to data analysis. The CHBQ was developed by Lie and Boker and was originally validated among medical students [19], with further studies conducted with a variety of health care students [20–22], and nurse-midwives [15]. The internal consistency of the measure (using a Cronbach's alpha) was found to be 0.75[19] and 0.81[15]. The full survey was piloted with five non-ACM member midwives for clarity and overall ease of administration.

### 2.3. Data analysis

Electronic responses were entered directly into SurveyMonkey by the respondents and manually by the researcher (LM) for paper-based surveys completed at the conference. The SurveyMonkey program provided simple descriptive statistics as well as individual-level data (Portland, OR, USA). Survey data were then imported into the Statistical Package for Social Science V23.0 (SPSS) for further analysis. Data analysis included descriptive analysis, chi-square and logistic regression. Statistical significance was set at $p < 0.05$.

## 3. Results

A total of 571 registered midwives responded (16%) which is above the 375 required to have statistical power. Not all questions were answered by all 571 respondents—therefore, means and percentages are given for the actual number of responses. Most respondents were female (97.2%, n = 555), of Caucasian/white ethnicity (95.6%, n = 546), working part-time (47.5%, n = 271) or full time (38.9%, n = 222) and working in all areas of maternity care (58.5, n = 334). Respondents were more likely aged between 45 and 54 years (35.6% n = 203), and a registered midwife for more than 25 years (37.7%, n = 215) [17]. Demographic data analysis revealed the respondents are representative of registered midwives in Australia who have ACM membership, based on available data [23,24].

### 3.1. Midwives' personal views of CAM

For the first six statements on midwives' personal views of CAM, 501–505 midwives responded with most respondents strongly agree/agreed (Table 1).

### 3.2. Midwives' views of organisational support for CAM

As shown in Table 1, the three statements (statements 7,8,9) on midwives' perception of organisational support for self-help/CAM strategies and local CAM guidelines/procedures, 525–527 (92–92.3%) midwives responded. Just under half of respondents (49.5%) strongly disagreed or disagreed and 44% strongly agreed or agreed with the statement, *My hospital or service has guidelines or procedures on the use of CAM*. It is interesting to note that 14.4% of respondents answered 'unsure' that they felt supported in their organisation to recommend self-help strategies and 11.6% were unsure if they felt supported to recommend CAM strategies to pregnant women. More than half of the respondents strongly agreed/agreed with the statement that they felt supported by their organisation to recommend self-help strategies (53.3%) compared with feeling supported by their organisation to recommend CAM strategies (47.6%).

Logistic regression analysis found a statistically significant

**Table 2a**
Statement 1 and Q11 Discuss CAM/self-help strategies.

| | B | S.E. | Wald | df | Sig. | Exp(B) | 95% Ci for EXP (B) | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Lower | Upper |
| Statement 1 | 1.509 | 0.118 | 165.125 | 1 | 0.000 | 4.523 | | |
| Midwives' Personal View of CAM | 2.497 | 0.357 | 48.898 | 1 | 0.000 | 12.141 | 6.030 | 24.442 |
| constant | −0.657 | 0.329 | 3.977 | 1 | 0.046 | 0.519 | | |
| Use of CAM in midwives' own pregnancy/ies | 1.397 | 0.278 | 25.262 | 1 | 0.000 | 4.042 | 2.344 | 6.968 |
| constant | 0.718 | 0.193 | 13.854 | 1 | 0.000 | 2.050 | | |
| Midwives CAM training/qualification | −.020 | 0.007 | 8.758 | 1 | 0.003 | 0.980 | 0.967 | 0.993 |
| constant | 3.156 | 0.597 | 27.988 | 1 | 0.000 | 23.476 | | |

**Table 2b**
Logistical Regression- Midwives' personal views and use of CAM.

| | B | S.E. | Wald | df | Sig. | Exp(B) | 95% Ci for EXP (B) | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Lower | Upper |
| Statement 6 | | | | | | | | |
| Midwives' personal use CAM | 1.499 | .558 | 7.215 | 1 | .007 | 4.476 | 1.500 | 13.363 |
| constant | 2.054 | .475 | 18.700 | 1 | 0.000 | 7.800 | | |

relationship between midwives who answered positively to Statement 1 (*CAM is an important aspect of my own/family healthcare*) and midwives who personally used CAM ($p < 0.000$), or used CAM in their own pregnancy/cies ($p < 0.000$) and had CAM training or qualifications ($p < 0.003$) (Table 2a).

There was also a statistically significant association for Statement 6 (*All midwives should receive education of CAM strategies during their undergraduate curriculum*) and midwives who personally used CAM ($p < 0.007$). No other variables (age, years as a midwife, professional qualifications) were significantly related to any of the first six statements. Interestingly, there was no significant relationship between midwives working in the education field (hospitals/universities, $n = 53$) and Statement 6 ($p = 0.141$) (Table 2b).

### 3.3. CAM Health Belief Questionnaire (CHBQ)

Only respondents who completed the 10 CHBQ questions were included in the mean score analysis. Most respondents absolutely agreed or agreed with many of the philosophical statements of CHBQ. As depicted in Table 3, midwives responded with high scores to the positively worded items 1–3, 5 and 9–10. Of note is that just over half (57.1%) of respondents absolutely agreed or agreed with Item 4, *A patient's symptoms should be regarded as a manifestation of a general imbalance or dysfunction affecting the whole body*. As for the negatively worded items (6–9), the majority of midwives disagreed or absolutely disagreed (scoring 1–3) with the statement that CAM poses a threat to public health (Item 6: 91.7%), with half of respondents disagreeing with the need to discourage treatments that have not been scientifically proven (Item 7: 58.7%), and the assumption that the effect of CAM is no more than a placebo effect (Item 8: 62.2%) (Table 3).

Table 4 displays this national survey findings as mean scores and compares them with data obtained from the CHBQ scores recorded by 173 Israeli midwives in Samuels et al.'s (2010) study. All positively framed questions (items 1–5, 9–10) had similar mean scores greater than 5 (i.e., strong agreement) in both our studies except for Item 4, *A patient's symptoms should be regarded as a manifestation of a general imbalance or dysfunction affecting the whole body*, with our study finding a mean score of 4.8 (18.6% of respondents disagreeing and 24.2% indecisive) compared to the mean score of 5.43 found in the study by Samuels et al. (2010). Conversely, the three negatively framed questions (items 6–8) had lower scores, indicating less endorsement of these negative statements in both our study and similarly in Samuels et al. (2010). A total CHBQ mean score of 45.43 (SD 6.53) was calculated, with a range of 14–67 (possible range 7–70) for our Australian survey compared to Samuels et al. with a higher total mean score of 55.78 (SD9.98) with a range of 15–70.

## 4. Discussion

The low response rate of 16% was identified as a possible limitation however, the actual number (571) was sufficiently large enough to meet the requirements for study power and the distribution of responders was representative of the population of ACM midwife members. A second limitation was the possibility that only midwives interested in CAM may have responded to the survey yet 48 respondents (8.1%) reported never discussing CAM strategies with women in their care, did not have knowledge and education on CAM and did not use CAM for personal use.

Midwives may have a particular viewpoint or belief, but this may not be consistent with their behaviour or clinical practice, since their behaviour may be more circumscribed than their attitudes or beliefs because of organisation or policy constraints [25,26]. In light of this variant, it is necessary to not only examine what midwives do in practice—that is, discussing and recommending CAM or referring women to a CAM practitioner—but also to explore midwives' views and beliefs about CAM that underpin their midwifery philosophy and practice. Over 90% of the national survey respondents agreed with the fundamental principles/ideologies of CAM, that align with the concept of woman-centred care, such as women having the right to choose, being adequately informed about the CAM strategies that can be used safely in pregnancy and that their expectations, health beliefs and values should be integrated into the woman-centred care process [27].

The findings of this national study were consistent with the three other studies, revealing that midwives hold a positive view about CAM and perceive it as beneficial, natural and effective in stimulating the body's natural healing power, and do not view CAM as a threat to public health [14,16,18]. In the South Australian study, Gaffney and Smith (2004) only used the last five of the ten questions from the CHBQ tool [16]. Although this national study comprised a large and nationally representative sample of midwives and was conducted 12 years later than the South Australian study, the comparison of findings shows that Australian midwives' beliefs and views of CAM have remained relatively unchanged.

Comparing the national survey findings of the CHBQ with the Samuels et al. [15] study reveals very similar CHBQ mean scores (Table 4) except for Item 4: *A patient's symptoms should be regarded as a manifestation of a general imbalance or dysfunction affecting the whole body*. For this item, the mean score for Australian midwives was lower than for Israeli midwives. A reason for this difference could be that Australian midwives do not have a strong 'belief' in this statement. Belief is understood to mean the 'acceptance, trust, faith or confident feeling that something exists or is true' [28].

For our study on Australian midwives and the Samuels et al. (2010)

**Table 3**
Midwives' response to CAM Health Belief Questionnaire (CHBQ).

| | Item | Absolutely Disagree/Disagree % (n) | Neither disagree/agree % (n) | Absolutely Agree/Agree % (n) |
|---|---|---|---|---|
| 1 | The physical and mental health are maintained by an underlying energy or vital force. (n = 498) | 8.6 (43) | 25.3 (126) | 66.1 (326) |
| 2 | Health and disease are a reflection of balance between positive life-enhancing forces and negative destructive forces. (n = 494) | 11.3 (56) | 23.1 (114) | 65.6 (324) |
| 3 | The body is essentially self-healing and the task of a healthcare provider is to assist in the healing process. (n = 500) | 9.25 (46) | 19.8 (99) | 71.0 (355) |
| 4 | A patient's symptoms should be regarded as a manifestation of a general imbalance or dysfunction affecting the whole body. (n = 499) | 18.6 (93) | 24.2 (121) | 57.1 (285) |
| 5 | A patient's expectations, health beliefs and values should be integrated into the patient care process. (n = 501) | 2.6 (13) | 1.8 (9) | 95.6 (479) |
| 6[a] | Complementary therapies are a threat to public health. (n = 503) | 91.7 (461) | 5.4 (27) | 3.0 (15) |
| 7[a] | Treatments not tested in a scientifically recognised manner should be discouraged. (n = 499) | 58.7 (293) | 21.6 (108) | 19.7 (98) |
| 8[a] | Effects of complementary therapies are usually the result of a placebo effect. (n = 500) | 62.2 (311) | 29.6 (148) | 8.2 (41) |
| 9 | Complementary therapies include ideas and methods from which conventional medicine could benefit. (n = 500) | 4.4 (22) | 14.0 (70) | 81.6 (408) |
| 10 | Most complementary therapies stimulate the body's natural therapeutic powers. (n = 500) | 7.4 (37) | 23.6 (118) | 69.0 (345) |

[a] Q6,7,8 are worded negatively and answers are in the reverse.

study of Israeli midwives, the CHBQ mean scores for the positively worded items (1–4) were similar, yet higher than those of medical students [19]. Respectively, for the negatively worded items (6–8), Australian and Israeli midwives' mean scores were lower than those of medical students (4.1–5.5) [19]. The variation of mean scores between midwifery and medical health professionals may reflect the variations between the medical philosophy (focus on illness and disease) and the midwifery social philosophy (focus on wellness and normal process). Both Midwifery and CAM philosophies assert that benefit can be gained from supporting normal physiology wherever possible [13,26].

It is concerning to the authors that 51.6% of respondents were unsure or felt unsupported by their organisation to recommend CAM strategies to pregnant women. Also, of concern is that nearly half (49.5%) of respondents believed that their hospital/service did not have guidelines/procedures on the use of CAM to guide midwifery clinical practice; yet, as previously reported by Mollart et al. (2018), nearly all respondents discussed (91.1%) and recommended (88.4%) CAM/self-help options to pregnant women. Our concern is shared with other authors who have identified that midwives may conceal their support of CAM in the presence of an unsupportive colleague or within the context of hospital policies, by not documenting women's use of CAM [14,26]. Several studies have identified that state or national guidelines need to be developed that provide the necessary guidance and regulation for midwives using or discussing CAM, whilst maintaining sufficient flexibility to enable midwives to make appropriate clinical decisions and support individualised care [29–32]. The findings of our Australian study concur with this identified need, although other international jurisdictions may have current CAM guidelines or policies [33], to date only one Australian state organisation (NSW Nurses and Midwives Association) has a current policy published [34].

## 5. Conclusion

This is the first national survey of Australian midwives exploring their views and beliefs about CAM. The majority of midwife respondents strongly agreed or agreed with the fundamental philosophical statements of CAM and woman-centred care. The survey findings reveal that midwives believed their hospital/service did not have guidelines/procedures on the use of CAM to support or guide midwifery clinical practice, even though nearly all respondents had conversations with pregnant women about CAM/self-help options. Our findings have significant implications for both clinical care and research. This study confirms the need for a clearly articulated Australian policy or a position statement for midwifery practice and CAM. As midwives are showing an increased interest in discussing and recommending CAM, further research is recommended to determine the level of training and education that midwives have received in this field.

## Authors contributions

LM, MF: have contributed to the design and development of the study protocol. LM and VS performed the statistical data analysis. LM prepared the initial draft of the manuscript. MF was a supervisor for this research. All authors critically reviewed the content and approved the final version.

## Author disclosure statement

No competing financial interests exist. L Mollart conducts an educational workshop on acupressure.

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**Table 4**
CHBQ mean score compared with the findings of Samuels et al. (2010).

| Item | CHBQ | National survey Mean (SD) | *Samuels* et al. *(2010) n = 173* Mean (SD) |
|---|---|---|---|
| 1 | Physical and mental health are maintained by an underlying energy or vital force. (n = 498) | 5.3 (1.51) | 5.33 (1.90) |
| 2 | Health and disease are a reflection of balance between positive life-enhancing forces and negative destructive forces. (n = 494) | 5.1 (1.57) | 5.41 (1.71) |
| 3 | The body is essentially self-healing and the task of a healthcare provider is to assist in the healing process. (n = 500) | 5.3 (1.49) | 5.75 (1.56) |
| 4 | A patient's symptoms should be regarded as a manifestation of a general imbalance or dysfunction affecting the whole body. (n = 499) | 4.8 (1.62) | 5.43 (1.55) |
| 5 | A patient's expectations, health beliefs and values should be integrated into the patient care process. (n = 501) | 6.2 (1.06) | 6.21 (1.29) |
| 6[a] | Complementary therapies are a threat to public health. (n = 503) | 1.8 (1.11) | 1.68 (1.34) |
| 7[a] | Treatments not tested in a scientifically recognised manner should be discouraged. (n = 499) | 3.2 (1.58) | 3.17 (2.10) |
| 8[a] | Effects of complementary therapies are usually the result of a placebo effect. (n = 500) | 2.9 (1.36) | 2.57 (1.77) |
| 9 | Complementary therapies include ideas and methods from which conventional medicine could benefit. (n = 500) | 5.6 (1.24) | 5.87 (1.46) |
| 10 | Most complementary therapies stimulate the body's natural therapeutic powers. (n = 500) | 5.2 (1.35) | 5.49 (1.59) |

1 = absolutely disagree, 3 = agree, 4 = neither disagree/agree, 5 = agree, 7 = absolutely agree.
[a] Q6, 7, 8 are worded negatively and answers are in the reverse.

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## Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.ctcp.2018.12.008.

## References

[1] National Centre Complementary Integrated Health, Safe use of complementary health products and practices, https://nccih.nih.gov/health/safety, (04 February 2016 2011) , Accessed date: 8 May 2017.
[2] J. Adams, D. Sibbritt, C. Lui, The use of complementary and alternative medicine during pregnancy: a longitudinal study of Australian women, Birth Issues Perinat. Care 38 (3) (2011) 200–206.
[3] H.G. Hall, K. Jolly, Women's use of complementary and alternative medicines during pregnancy: a cross sectional study, Midwifery 30 (2014) 499–505.
[4] J. Frawley, D. Sibbritt, A. Broom, C. Gallois, A. Steel, J. Adams, Women's attitudes towards the use of complementary and alternative medicine products during pregnancy, J. Obstet. Gynaecol. 36 (4) (2016) 462–467.
[5] J. Bishop, K. Northstone, J. Green, E. Thompson, The use of complementary and alternative medicine in pregnancy: data from the Avon Longitudinal Study of Parents and Children (ALSPAC), Complement. Ther. Med. 19 (6) (2011) 303–310.
[6] D. Kennedy, A. Lupattelli, G. Koren, H. Nordeng, Herbal medicine use in pregnancy: results of a multinational study, BMC Complement Altern. Med. 13 (2013) 355.
[7] H. Skouteris, E. Wertheim, S. Rallis, Use of complementary and alternative medicines by a sample of Australian women during pregnancy, Australian New Zealand Obstetrics and Gynaecology 48 (2008) 384–390.
[8] E.I. Feijen-de Jong, D.E. Jansen, F. Baarveld, E. Spelten, F. Schellevis, S.A. Reijneveld, Determinants of use of care provided by complementary and alternative health care practitioners to pregnant women in primary midwifery care: a prospective cohort study, BMC Pregnancy Childbirth 15 (2015) 140.
[9] S. Warriner, K. Bryan, A.M. Brown, Women's attitude towards the use of complementary and alternative medicines (CAM) in pregnancy, Midwifery 30 (1) (2014) 138–143.
[10] L. Mollart, J. Adams, M. Foureur, Pregnant women and health professional's perception of complementary and alternative medicine, and participation in a randomised controlled trial of acupressure for labour onset, Complement. Ther. Clin. Pract. 24 (2016) 167–173.
[11] H. Hall, D. Griffiths, L. McKenna, Keeping childbearing safe: midwives' influence on women's use of complementary and alternative medicine, Int. J. Nurs. Pract. 19 (4) (2013) 437–443.
[12] J. Adams, C.W. Lui, D. Sibbritt, A. Broom, J. Wardle, C. Homer, Attitudes and referral practices of maternity care professionals with regard to complementary and alternative medicine: an integrative review, J. Adv. Nurs. 67 (3) (2011) 472–483.
[13] J. Adams, An exploratory study of complementary and alternative medicine in hospital midwifery: models of care and professional struggle, Complement. Ther. Clin. Pract. 12 (1) (2006) 40–47.
[14] D. Harding, M. Foureur, New Zealand and Canadian midwives' use of complementary and alternative medicine, New Zealand Colleges of Midwives 40 (2009) 7–12.
[15] N. Samuels, R.Y. Zisk-Rony, S.R. Singer, et al., Use of and attitudes toward complementary and alternative medicine among nurse-midwives in Israel, Am. J. Obstet. Gynecol. 203 (4) (2010) 341 e1–7.
[16] L. Gaffney, C.A. Smith, Use of complementary therapies in pregnancy: the perceptions of obstetricians and midwives in South Australia, Aust. N. Z. J. Obstet. Gynaecol. 44 (1) (2004) 24–29.
[17] L. Mollart, V. Skinner, J. Adams, M. Foureur, Midwives' personal use of complementary and alternative medicine (CAM) influences their recommendations to women experiencing a post-date pregnancy, Women Birth 31 (2018) 44–51.
[18] Z. Koc, S. Topatan, Z. Saglam, Use of and attitudes toward complementary and alternative medicine among midwives in Turkey, Eur. J. Obstet. Gynecol. Reprod. Biol. 160 (2) (2012) 131–136.
[19] D. Lie, J. Boker, Development and validation of the CAM Health Belief Questionnaire (CHBQ) and CAM use and attitudes amongst medical students, BMC Med. Educ. 4 (1) (2004) 2.
[20] C.P. Riccard, M. Skelton, Comparative analysis of 1st, 2nd, and 4th year MD students' attitudes toward Complementary Alternative Medicine (CAM), BMC Res. Notes 1 (1) (2008) 84.
[21] M.B. Jakovljevic, V. Djordjevic, V. Markovic, O. Milovanovic, N.K. Rancic, S.M. Cupara, Cross-sectional survey on complementary and alternative medicine awareness among health care professionals and students using CHBQ questionnaire in a Balkan country, Chin. J. Integr. Med. 19 (9) (2013) 650–655.
[22] J. Pokladnikova, D. Lie, Comparison of attitudes, beliefs, and resource-seeking behavior for CAM among first-and third-year Czech pharmacy students, Am. J. Pharmaceut. Educ. 72 (2) (2008) 24.
[23] AIHW, National Health Workforce Data Set: Nurses and Midwives 2015, AIHW, Canberra, 2015.
[24] NMBA. Nurse and Midwife Registrant Data. Melbourne Vic, NMBA, 2015.
[25] I. Bourgeault, K. Hirschkorn, CAM integration in inter-professional context: nursing, midwifery and medicine in Canada, in: J. Adams, P. Tovey (Eds.), Complementary and Alternative Medicine in Nursing and Midwifery: towards a Critical Social Science, Routledge, London UK, 2008, pp. 11–32.
[26] H.G. Hall, D.L. Griffiths, L.G. McKenna, Complementary and alternative medicine in midwifery practice: managing the conflicts, Complement. Ther. Clin. Pract. 18 (4) (2012) 246–251.
[27] S. Pairman, J. McAra-Couper, Theoretical framework for midwifery practice, in: S. Pairman, J. Pincombe, C. Thorogood, S. Tracy (Eds.), Midwifery: Preparation for Practice, third ed. ed., Sydney Churchill Livingston, 2015, pp. 383–411.
[28] U. Cambridge, Cambridge dictionary, Press CU, Cambridge University Press, University Printing House, Shaftesbury Road. Cambridge, CB2 8BS, UK., Cambridge, UK, 2016.
[29] H. Diezel, A. Steel, J. Wardle, K. Johnstone, Patterns and influences of inter-professional communication between midwives and CAM practitioners: a preliminary examination of the perceptions of midwives, Australian Journal of Herbal Medicine 25 (1) (2013) 4–12.
[30] M. Hastings-Tolsma, M. Terada, Complementary medicine use by nurse midwives in the U.S. *Complement*, Ther Clin Pract 15 (4) (2009) 212–219.
[31] H.G. Hall, L. McKenna, D.L. Griffiths, From alternative, to complementary to integrative medicine: supporting Australian midwives in an increasingly pluralistic maternity environment, Women Birth 26 (2) (2013) e90–e93.
[32] H.G. Hall, L.G. McKenna, D.L. Griffiths, Complementary and alternative medicine for induction of labour, Women Birth 25 (3) (2012) 142–148.
[33] Royal College of Midwives, Position Statement: Complementary Therapies and Natural Remedies, third ed., RCOM, United Kingdom, 2014, p. 4.
[34] NSW Nurses and Midwives Association, Policy on Complementary and Alternative Therapies in Nursing and Midwifery Practice, third ed., NSWNMA, Sydney, Australia, 2018, p. 2.