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The benefits of yoga during pregnancy: a literature review

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Yoga has become a popular form of complementary alternative medicine, and is often advocated for a wide range of conditions. Yoga explores the mind and body. Every woman goes through a different pregnancy journey with a variety of physical and psychological symptoms. In today's western world, health services focus a great deal on the medical management of pregnancy. The aim of this literature review is to offer insight into and understanding of the benefits of yoga in pregnancy. Electronic data bases of PubMed, CINAHL and Science direct were searched in December 2017 for primary research studies published in the English language from 2005 to 2017. A total of 12 studies were included in this review. Three themes emerged; 'benefits on mental health', 'reduction in pain' and 'birth outcome benefits'.

Introduction

Yoga has gained wide popularity as a holistic mind-body therapy approach to physical, mental and spiritual wellbeing (Bijlani 2008). The word 'yoga' means 'to unite', to join the mind, body and spirit, and direct one's attention by calming the restless mind (Nagarathna and Nagendra 2008).

Pregnancy is a transformative time, during which the overall wellbeing of the mother is critical, with distinct physiological changes, accompanied by stress due to the unique physical and psychological demands (Kinsella and Monck 2009).



Yoga during pregnancy is an extensive practice, and its benefits have been recognised internationally.

Pregnancy yoga is a gentle form of yoga in which instructors are aware of the unique needs of pregnant women (Kinser and Lyon 2008). The aim of this review was to evaluate some of the recent literature that highlights the effects of yoga during pregnancy.

Methodology

A literature review was undertaken in December 2017 by searching the databases of PubMed, CINAHL and Science direct, with inclusion criteria limited to primary research studies published in the English language, for a 12-year period from 2005 to 2017, that reported on the effects of yoga during pregnancy. Search terms such as, 'yoga', 'complementary medicine', 'woman's', 'antenatal', 'postnatal', 'intrapartum', 'experience', were combined using Boolean operand 'and' to develop a search string (Boolean operand – such as 'and' or 'or' – are commonly used in reporting literature reviews or systematic reviews to broaden or narrow the search results). The retrieved papers were reviewed for selection by title, abstract and full text, and data were extracted from included studies, and analysed to derive themes.

Search results

The search resulted in 406 studies; 296 of these were excluded from screening by title and abstract and 98 studies were excluded from selection by full text. The remaining 12 studies were further reviewed for data extraction and analysis to derive themes (Table 1 presents results of screening and selection).

Of the 12 studies included, eight had used a randomised control trial (RCT), two a qualitative design and a prospective-matched and observational design, and one had used a survey design, involving a total of 1,152 women from seven countries (Table 2 presents the summary characteristics of each included study). Three major themes were derived; 'mental health benefits', 'reduction in pain' and 'benefits related to birth outcome'.

Database and years	Total number of retrieved studies	Excluded on title and abstract	Excluded on full text review	Included in review
CINAHL (2005-2017)	126	102	22	2
PubMed (2005-2017)	148	104	38	6
Science Direct (2005-2017)	132	90	38	4
Final inclusion (after removing duplicates) = 12				

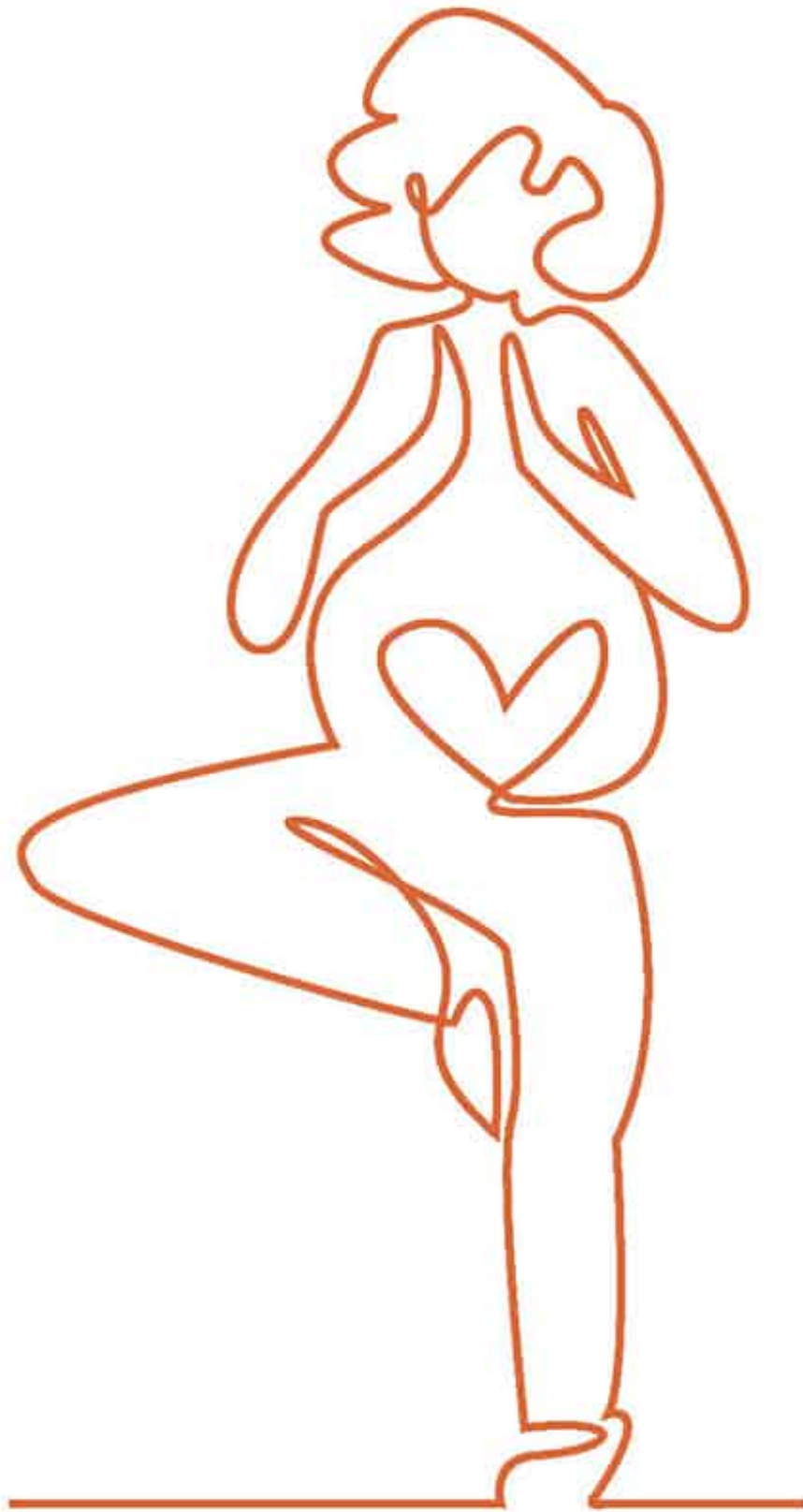
Table 1 Screening and selection (results)

Mental health benefits

Benefits of yoga related to women's mental health, were reported in seven studies. Pregnancy yoga has been reported to be effective in improving the quality of life of pregnant women who were distressed by the overwhelming physiological, psychological and emotional changes in pregnancy (Rakhshani et al, 2010), reduction in mental health concerns and improvements in pregnancy experiences (Satyapriya et al, 2013).

Yoga practices during pregnancy were identified to be significantly associated with optimism, power and wellbeing (Reis and Alligood 2014), and reduction of physiological anxiety and persistence of these effects after repeated yoga sessions (Newham et al 2014; Smith et al, 2007).

Studies on women's experiences of participating in prenatal yoga suggested that yoga was sought by women to deal with feelings of stress and depressive symptoms, and offered a complementary-health approach to self-manage their stress (Kinser and Masho 2015a). Women perceived yoga to be an effective means of reducing stress levels, isolation and physical discomforts, and enhancing relationship-building with others (Kinser and Masho 2015b), also developing more patience and a relaxed mood to face the bodily changes (Sun et al, 2010).



Reduction in pain

The benefits of yoga in terms of reducing pain are reported in four studies. Yoga is a non-pharmacological therapy, which improves maternal strength and flexibility while simultaneously enhancing the woman's ability to become more in tune with her body and prepare her for labour (Sun et al, 2010).

Yoga as a non-pharmacological and complementary therapy was identified to be an effective and viable method of managing pain, and was associated with a significant reduction in epidural rate (Levett et al, 2016). A significant reduction in pain during labour

and improved maternal comfort and satisfaction were some of the frequently reported key findings (Chuntharapat et al, 2008; Jahdi et al, 2017; Sun et al, 2010).

Birth outcome benefits

Benefits of yoga in relation to positive birth outcomes have been reported in four studies. Yoga, by its holistic approach to health, appears to be safe in pregnancy, and this leads to improved outcomes.

The secondary clinical outcome as a result of practising yoga found that women were more likely to experience a normal vaginal birth, less likely to be augmented, and reduction in birth by caesarean section (Jahdi et al, 2017), with reduced perineal trauma and shortened second stage of labour (Chuntharapat et al, 2008), with decreased medical interventions and increased personal control for women (Levett et al, 2016). Other reported benefits of yoga included a significant increase in mean gestational age of babies and decreased percentage of intrauterine growth retardation (IUGR) and IUGR associated with pregnancy-induced hypertension (Narendran et al, 2005).

Discussion

This review demonstrates multiple positive effects of yoga including emotional and psychological wellbeing, physical benefits, pain management and positive birth outcomes.

Anxiety and depression have been identified as two common responses to stressfully demanding situations affecting healthy progression of pregnancy (Rakhshani et al, 2010). One of the key findings of this review suggested benefits of yoga in terms of mental health, by empowering women to manage their stress and facilitating optimism (Satyapriya et al, 2013). Yoga during pregnancy is significantly associated with reduced levels of pain (Levett et al, 2016) and positive birth outcomes (Chuntharapat et al, 2008) for both mother and baby. This is relevant to midwifery practice. Supporting a woman and helping her to cope with pain during labour and birth is one of the primary roles of a midwife. Awareness of the evidence about benefits of yoga can help midwives and other healthcare professionals play this role efficiently and effectively making it a positive experience for every woman they care for.

Table 2 Summary characteristics of included studies

Author/ Year	Aim	Participants and study location	Method of data collection	Method of data analysis	Key findings by author(s)	Themes reported
Rakhshani et al 2010	To investigate the effects of integrated yoga on the quality of life and interpersonal relationships in normal pregnancy	Prospective two-armed RCT with 102 women, in Bangalore, India	WHOQOL-100 and FIRO-B questionnaires	Group analysis	Yoga effectively improves the quality of life of expectant mothers who are distressed by the physiological, psychological and emotional changes of pregnancy	Mental health benefits
Satyapriya et al 2013	Effect of integrated yoga on pregnancy experience, anxiety and depression in normal pregnancy	Prospective two-armed RCT with 96 women, in Bengaluru, India	Pregnancy experiences questionnaires, state trait anxiety inventory and hospital anxiety depression scale	Statistical analysis	Practising yoga regularly in the second and third trimester is more effective than standard antenatal activity in decreasing anxiety and depression, and improving the pregnancy experience	Mental health benefits
Reis and Allgood 2014	Explore changes in optimism, power and wellbeing over time, in women who participated in a six-week prenatal yoga programme	Survey of 27 pregnant women in the United States	Demographic survey, Life Orientation Test – revised, power as knowing participation in change tool version 11, wellbeing picture scale and short-form 12 version	Cronbach's alpha coefficients means, standard deviation potential and obtained ranges	Increase in mean scores for optimism, power and wellbeing were significant from baseline to completion of the prenatal yoga programme	Mental health benefits
Newham et al 2014	To investigate the efficacy of yoga as an intervention for reducing maternal anxiety during pregnancy	RCT with 51 pregnant women in the United Kingdom	Questionnaires	Mann-Whitney U test, chi-square test and Fisher's exact test	Antenatal yoga seems to be useful for reducing women's anxieties and preventing increases in depressive symptomatology	Mental health benefits
Smith et al 2007	To investigate the health benefits of yoga in reducing stress, anxiety and poor quality of life in pregnant women	Randomised comparative trial with 117 women in South Australia	Questionnaires	Intention-to-treat SPSS V12.0.1	Yoga was more effective than relaxation in improving mental health issues	Mental health benefits
Kinser and Masho 2015a	To explore women's experiences of participating in prenatal yoga	Qualitative descriptive study with 14 women in Virginia, United States	Focus groups	Descriptive factor analysis	Women perceived prenatal yoga to be helpful for self-management of both psychological distress and physical symptoms during pregnancy	Mental health benefits
Kinser and Masho 2015b	To explore pregnant teenagers' experience of stress and depression, and examine their perceptions of non-pharmacological strategies such as yoga	Qualitative study of 17 women in Virginia, United States	Focus groups	Hermeneutic circle	Participants perceived yoga to be helpful to reduce stress-like symptoms and combat feelings of isolation	Mental health benefits
Levett et al 2016	To evaluate the effects of prenatal yoga for the intrapartum period	Open label assessor for blind RCT with 171 pregnant women in Sydney, Australia	Questionnaire (seven-item Likert scale)	Intention-to-treat SPSS V.22	Practising yoga significantly reduced epidural use and the rates of caesarean section	Reduction in pain; birth-outcome benefits

Table 2 Summary characteristics of included studies (continued)

Author/ Year	Aim	Participants and study location	Method of data collection	Method of data analysis	Key findings by author(s)	Themes reported
Chuntharapat et al 2008	This study examined the effects of yoga during pregnancy, on maternal comfort, labour pain and birth outcomes	RCT with 74 women in Southern Thailand	Questionnaires	ANOVA, Bonferroni comparisons, t-tests, Fisher's extract tests	Experimental group found to have higher levels of comfort during labour and shorter first stage of labour	Reduction in pain; birth-outcome benefits
Jahdi et al 2017	To investigate the effects of an antenatal yoga programme on perceived maternal labour pain and birth outcomes	Single blind RCT with 60 women in Iran	Questionnaires	SPSS v.20, t-test and chi-square	Yoga during pregnancy contributed to a decrease in pain of labour and improved adequacy of childbirth	Reduction in pain; birth-outcome benefits
Sun et al 2010	To evaluate a yoga programme for pregnant women with the aim of decreased discomforts associated with pregnancy and childbirth self-efficacy	Non-randomised controlled trial with 88 women in Taiwan	Questionnaires	Mean, standard deviation, t-test, x2 test and Mann-Whitney U test	Pregnancy discomfort decreased, and women felt more prepared physically and emotionally for childbirth in the yoga group compared to the control group	Reduction in pain
Narendran et al 2005	To study efficacy of yoga on pregnancy outcomes	Prospective matched and observational study with 335 women in Bangalore, India	Sub-group analysis	SPSS software, t-test, chi-square and Fisher's extract tests	The yoga intervention group presented with lower duration of labour and lower incidence of IUGR than the control group	Birth outcome benefits

Limitations

Findings of this review are limited to studies published over the 12-year period.

Implications

Future research to examine the benefits of yoga on women’s antenatal, intranatal and postnatal health can provide strong evidence for practice. This will empower midwives to implement this evidence in practise during antenatal education, preparation for birth and as a form of non-pharmacological pain relief. **TPM**

References

Bijlani RL (2008). ‘Yoga: an ancient tool in modern medicine’. The National Medical Journal of India, 21(5): 215-216.

Chuntharapat S, Petpichetchian W and Hatthakit U (2008). ‘Yoga during pregnancy: effects on maternal comfort, labor pain and birth outcomes’. Journal of Complementary Therapies In Clinical Practice, 14: 105-115.

Jahdi F, Sheikhan F, Haghani H et al (2017). ‘Yoga during pregnancy: the effects on labor pain and delivery outcomes (a randomized controlled trial)’. Journal of Complementary therapies in Clinical Practice, 27: 1-4.

Kinsella MT and Monck C (2009). ‘Impact of maternal stress, depression and anxiety on fetal neurobehavioral development’. Journal of Clinical Obstetrics and Gynaecology, 52(3): 425-440.

Kinser PA and Lyon DE (2008). ‘Prenatal yoga. Guidance for providers and patients’. Advanced Journal for Nurse Practitioners, 16(5): 59-62.

Kinser P and Masho S (2015a). “Yoga was my saving grace”. The experience of women who practice prenatal yoga’. *Journal of the American Psychiatric Nurses Association*, 21(5): 319-326.

Kinser P and Masho S (2015b). “I just start crying for no reason”: the experience of stress and depression in the pregnant urban, African-American adolescents and their perception of yoga as a management strategy’. *Journal of Women’s Health Issues*, 25(2): 142-148.

Levett KM, Smith CA, Bensoussan A et al (2016). ‘Complementary therapies for labour and birth study: a randomised controlled trial of antenatal integrative medicine for pain management in labour’. *The British Medical Journal*, 6: e010691. doi: 10.1136/bmjopen-2015-010691.

Nagarathna R and Nagendra HR (2008). *Yoga for promotion of positive health*, revised. Bengaluru: Swami Vivekanada Yoga Prakashana.

Narendran S, Nagarathna R, Narendran V et al (2005). ‘Efficacy of yoga on pregnancy outcome’. *The Journal of Alternative and Complementary Medicine*, 11(2): 237-244.

Newham JJ, Wittkawaski A, Hurley J et al (2014). ‘Effects of antenatal yoga on maternal anxiety and depression: a randomized controlled trial’. *Journal of Depression and Anxiety*, 31: 631-640.

Rakhshani A, Maharana S, Raghuram N et al (2010). ‘Effects of integrated yoga on quality of life and interpersonal relationship of pregnant women’. *Journal of Quality of Life Research*, 19: 1447-1455.

Reis PJ and Alligood MR (2014). ‘Prenatal yoga in late pregnancy and optimism, power and well-being’. *Journal of Nursing Science Quarterly*, 27(1): 30-36.

Satyapriya M, Nagarathna R, Padmalatha V et al (2013). ‘Effect of integrated yoga on anxiety, depression and well-being in normal pregnancy’. *Journal of Complementary Therapies in Clinical Practice*, 19: 230-236.

Smith C, Hancock H, Blake-Mortimer J et al (2007). ‘A randomised comparative trial of yoga and relaxation to reduce stress and anxiety’. *Journal of Complementary Therapies in Medicine*, 15: 77-83.

Sun YC, Hung YC, Chang Y et al (2010). ‘Effects of a prenatal yoga programme on the discomforts of pregnancy and maternal childbirth self-efficacy in Taiwan’. *Journal of Midwifery*, 26: 31-36.

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