

## Complementary and Alternative Therapies in Perinatal Period: Current Scenario

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### Abstract

Complementary and alternative medicine (CAM) is known as a branch of different health care products, practices and systems that are not commonly included in traditional medicine. The term Alternative therapy is used as a substitution of conventional treatments whereas Complementary therapy is used in addition with conventional treatments. Traditional medicine, alternative medicine, complementary medicine all are proven to be used safely in perinatal period. Homeopathic remedies are found to have no side effects but they are not prescribed commonly for alleviating an ailment quickly so they are better to take in later months of pregnancy. Natural remedies like garlic, Ginkgo Biloba leaf, cranberry etc. they are helpful in reducing stress, diabetes, and some other problems in antenatal period. Manipulative therapies e.g., massaging, osteopathy all these have the benefits like reducing pain and enhancing the sense of wellbeing. Yoga, hypnosis, music therapy, acupressure etc. are the most accepted forms of complementary and alternative medicine called as mind and body medicine. Besides increasing the comfort level some of these medicines also help in reducing nausea, vomiting, improving bowel movement etc. Reiki therapy, sterile water injection, transcutaneous electrical nerve stimulation though they are not quite common in the practice of midwifery but are beneficial for pregnant mother.

**Keywords:** Homeopathy; Yoga; Aromatherapy; Reflexology; Acupuncture & Acupressure; Meditation; Hypnosis; Music Therapy; Massage Therapy; Sophrology; Water Birth; Religiosity.

### Introduction

Even though delivery is a natural phenomenon, it has been observed that the accompanying discomforts, changes are contemplated noteworthy in more than half of cases. Besides conventional approaches, complementary or alternative methods have been reported to manage the discomforts of perinatal period.

Complementary and alternative medicine (CAM) is now an emerging field in health care delivery system, which is not included in mainstream Western medicine. Complementary means treatments that are used in conjunction with conventional medicine. Alternative means treatments used as a substitution of conventional medicine. CAM emphasises on the person as a whole system and embraces all the domains of health i.e., physical, emotional, mental and spiritual health [1].

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The World Health Organization (WHO) defines “complementary and alternative medicine” (CAM) as a “broad set of health care practices that are not part of that country’s own tradition and are not integrated into the dominant health care system.” They are used interchangeably with traditional medicine in some countries. Traditional medicine is the sum total of the knowledge, skill, and practices based on the theories, beliefs, and experiences indigenous to different cultures, whether explicable or not, used in the maintenance of health as well as in the prevention, diagnosis, improvement or treatment of physical and mental illness [2].

National Centre for Complementary and Integrative Health (NCCIH-2015) classified CAM into

#### Five domains

1. *Whole Medical Systems* - Ayurveda, Yoga, Unani, Siddha, Homeopathic Medicine, Naturopathic Medicine and Traditional Chinese Medicine (TCM)
2. *Mind-Body Medicine* - meditation, hypnosis, music therapy, prayer and mental healing as well as creative therapies using artistic outlets (e.g. dance)
3. *Biologically Based Practices* - herbs, foods, vitamins and dietary supplements
4. *Manipulative and Body-Based Practices* - chiropractic, osteopathic manipulation, massage
5. *Energy Medicine* - Biofield therapies [Qi Gong (also: chi kung), Reiki, Therapeutic Touch] or Bioelectromagnetic-based therapies (pulsed fields, magnetic fields and current fields)[3].

The most frequently used CAM therapies (excluding prayer) are non-vitamin, non-mineral natural products (18.9%), deep breathing exercises (11.6%), yoga (5.1%), massage (5.0%) and diet-based therapies (3.5%). CAM is most often used to treat back pain or problems, head or chest colds, neck pain or problems, joint pain or stiffness, and anxiety or depression [4].

#### Current Status of CAM use in India

Study assessing perception, attitude and usage of complementary and alternative medicine among doctors and patients in a tertiary care hospital in

India showed that both health care providers and patients use CAM. Nevertheless, sometimes miscommunication occurs between client and health care professional, which act as a hindrance in providing quality patient care. These may be improved by making the health care providers aware about CAM preferably with inclusion of CAM in the medical curriculum. The use of CAM was more among doctors (58%) when compared with the clients (28%). Among doctors, those who had utilized CAM themselves, recommended CAM as a therapy to their patients (52%) and enquired about its use from patients (37%) largely. CAM was used concomitantly with allopathic medicine by 60% patients. Their doctors asked very few patients (7%) about CAM use, and only 19% patients voluntarily informed their doctors about the CAM they were using. Most of the clients who used CAM felt it to be more effective, safer, less costly and easily available in comparison to allopathic medicines [5].

#### Global Scenario of CAM Utilization in Maternity Care

Approximately 40% of adults in the United States use complementary and alternative medicine (CAM), with higher use among women than men [6]. In a study of data from the 2007 National Health Interview Survey (NHIS), Harrigan reported that of 2,673 women who interacted with any obstetrician/gynaecologist for medical care, 31.8% reported CAM use, while only half of these women disclosed CAM use to a physician [7].

A 2010 systematic review on CAM use during pregnancy cited a broad prevalence ranging from 1% to 87% [8]. Pregnant women tended to use CAM to relieve specific pregnancy related conditions including back pain, tiredness, and dysuria. Half of women reported seeing a CAM practitioner for pregnancy related conditions (neck pain, sciatica) [9]. The prevalence of CAM use is the same during pregnancy but less during the postpartum period as compared with non-pregnant women, particularly in regard to biologically based, manipulation, and body-based therapies. One out of four women reported using mind-body practices regardless of being pregnant or postpartum [10].

#### Recent Studies on Complementary and Alternative Therapies in Perinatal Period

##### 1. *Alternative systems of medicine*

*Homeopathy: “An Empirical Study of Role of*

Homeopathy in Pregnancy” states that the following homeopathic remedies are often required, both during and after labour.

*Arnica*: an indispensable remedy that can be given from time to time during labour to help the muscles function properly, to relieve the over-exertion of labour and reduce the bruised feeling after delivery, to relieve soreness, bruising and after-pains. Also helpful for babies who are bruised (from a long labour or a forceps delivery).

*Kali phos*: for simple exhaustion during labour, mental, emotional and physical.

*Caullophyllum*: for a difficult labour where the cervix is slow to dilate and the pains are strong but ineffective.

*Pulsatilla*: speed up healing for mother and baby, post-natal ‘blues’, especially when the milk comes in.

*Aconite*: for shock following the fear of the intensity of birth [11].

*Yoga*: An integrated approach to yoga during pregnancy is safe. It improves birth weight, decreases preterm labor, and decreases IUGR either in isolation or associated with PIH, with no increased complications [12]. The integrated yoga is an efficacious means of improving the quality of life of pregnant women and enhancing certain aspects of their interpersonal relationships [13].

#### *Acupuncture&Acupressure*

Acupuncture has been used in China for more than 2000years. Specific anatomic parts of the body are stimulated for therapeutic purposes. This can be done in the usual way with needles, but practitioners may also use heat, pressure, impulse of magnetic energy, burning by a preparation of the herb.

Acupuncture increases the degree of cervical ripening but does not reduce the amount of oxytocin or epidural analgesia administration, nor does it shorten length of induced labor. Acupressure may reduce labor pain and labor duration, but acupressure has not been found to increase cervical ripening or induce labor [14]. Use of ice massage of the acupressure energy meridian point large intestine 4 [(LI4)-LI4 is located on the medial midpoint of the first metacarpal, within 3 to 4 mm of the web of skin between the thumb and forefinger] to reduce labor pain during contractions is a safe, noninvasive, nonpharmacological method of reducing labor pain [15].

#### *Aromatherapy*

Aromatherapy uses essential oils extracted from aromaticbotanical sources to treat and balance the mind, bodyand spirit. Aromatherapy is effective, even when the fragrance was provided for a short time, for improving the temporary mood on the Tension-Anxiety and Anger-Hostility scales. Moreover, the amount of parasympathetic activity increased, and from a physiologic perspective, relaxing effects are observed. It is believed that an effect was easily obtained by having the participant choose a scent of their own preference and then using the selected scent [16].

#### *Reflexology*

A qualified team of midwives in the field of reflexology conducted a research on 100 pregnant mothers in the maternity unit at Walsall Manor Hospital in Walsall, England. It was found that reflexology shortened the duration of first stage by four hours and second stage by 21minutes as compared with the control group who were not receiving reflexology. And also the women in experimental group needed fewer strong pain relief measures during labour. They concluded that “more women went into labour sooner and needing less pain relief than those without reflexology”[17].

## **2. Mind-Body Interventions**

The basis of mind-body interventions is the interconnectedness of mind and body and their potential to affect each other. There are various mind-body interventions for chronic illnesses but these are also proven to be beneficial in the acute delivery situations. Maternal stress causes various pregnancy complications like hypertensive disorders during pregnancy and its more serious form eclampsia.

#### *Meditation*

RCT was done to examine the effect of mindfulness meditation on stress among Indian pregnant mothers with 12 weeks of pregnancy found significant fall in the perceived stress score and blood pressure among women of experimental group. This study suggested that mindfulness meditation modulates sympathetic nervous system powerfully and also improves parasympathetic functions during pregnancy and hence reducing the perceived stress among the pregnant women [18].

### *Hypnosis*

Hypnosis induces a state of deep relaxation by reducing the awareness and it is a tested intervention for minimizing stress and anxiety. If hypnosis is combined with the standard care it can effectively reduce antenatal stress levels and promote relaxation [19].

In a qualitative study examining effects of self-hypnosis on pain relief during labour women reported that self-hypnosis made them feel more calm, confident and empowered. The training of antenatal women for self-hypnosis was proven to be beneficial during the birthing process. This technique requires attention of health care providers in order to get implemented in the maternal care [20].

### *Music therapy*

Antenatal mothers report intense sensory pain during first stage of labor and more intense pain in all stages of childbirth even though they received more analgesia. The process of labor may produce normal anxiety. Music distracts from the perception of pain and relieves anxiety. Music therapy during first stage of labour is effective in reducing the pain perception and anxiety level and can be implemented in antenatal wards and labor room along with the standard treatment [21].

### *Biofeedback*

The efficacy of a cardiorespiratory biofeedback intervention helps to reduce the stress by awareness. 35% higher birth weight, 10% greater gestational age at birth and overall reduced stress levels were reported in the group receiving cardiorespiratory biofeedback intervention [22].

## **3. Manipulative and Body-Based Practices**

### *Massage therapy*

Massage therapy during labour shortens the duration of first and second stage of labor and also increases APGAR scores at birth first and fifth minute after birth. As massage therapy shorten the duration of labor women prefer for normal vaginal delivery [23].

When massage therapy was given to pregnant women it reduced their anxiety and symptoms of depression, relived muscle and joint pain and hence improved outcomes of labor and health status of new-

born. Massage reduces collection of fluids in swollen joints by stimulating soft tissues it also increases lymphatic drainage. There are many women who has reported significant reduction in sciatic nerve pain during pregnancy through massage therapy. There are certain other benefits of massage therapy during pregnancy liked reduced bone, joint pain, improvement in circulation, relaxation of the muscles, reduced headache, better oxygenation to the tissues and improved quality of sleep [24].

### *Sophrology*

The word sophrology derives from two Greek words, 'sos' which means harmony or serenity and 'phren' which stands for conscience or spirit. It was derived from Indian yoga and introduced in Europe during the 1960s. Purpose of sophrology is to improve the control of body and spirit through three degrees of dynamic relaxation: concentration, contemplation and meditation. Applied to obstetrics, better control of the delivery process is expected. Women individually report a high degree of satisfaction with this experience of relaxation during prenatal classes and delivery, but there is no controlled evaluation in the literature.

## **4. Biologically Based Practices**

Herbs, Foods, Vitamins and Dietary Supplements.

## **5. Energy Medicine**

Biofield therapies [Qi Gong (also: chi kung), Reiki, Therapeutic Touch] or Bioelectromagnetic-based therapies (pulsed fields, magnetic fields and current fields).

## **6. Other Therapies**

*Water Birth:* A Cochrane systematic review of eleven RCTs aiming to assess the maternal and fetal outcomes of water birth stated that there was a significant reduction in the need of all kinds of analgesia during labour with water birth but no difference in assisted vaginal deliveries, caesarean sections, perinatal trauma or APGAR scores and neonatal infection rates [25].

ACOG Committee opinion on "Immersion in Water During Labor and Delivery" (Nov. 2016) says that water birth shortens the duration of first

stage of labour as well as the need of spinal or epidural analgesia and it can be offered to term, uncomplicated pregnancies. But there are insufficient data to draw conclusions regarding the relative benefits and risks of immersion in water during the second stage of labor and delivery. Therefore, until such data are available, it is the recommendation of the American College of Obstetricians and Gynaecologists that birth occur on land, not in water [26].

#### *Therapeutic touch*

Therapeutic touch communicates reassurance and caring to the labouring mother. Painful contractions of the uterus can be treated by the application of pressure with the hands to the woman's back, abdomen, hips, thighs, sacrum or perineum. Holding hands conveys feelings of empathy.

#### *Religiosity*

A phenomenological study concluded that understanding religiosity helps in knowing the religious needs of the clients, hence health care professionals should understand religiosity in order to provide holistic care. The pregnant and birthing women should be supported to practice their religious beliefs [27].

#### **Conclusion**

Using complementary therapy in combination with current treatments, and/or alternative treatments instead of current treatments, pregnancy outcome can be changed. For this a thorough knowledge regarding uses, advantages and disadvantages about CAM is important. Commonly utilized types of CAM include acupuncture, aromatherapy, herbal and homeopathic medicines, meditation, movement therapies, chiropractic and osteopathic manipulation and so on. As the tendency is to medicate the pregnancy in order to reduce pregnancy related complications it is better to use evidence based natural therapies to aid in natural course of pregnancy and labour. Since midwives are care providers to women during puberty and reproductive periods, especially at pregnancy and also during menopause and post-menopausal periods, therefore use of complementary and alternative therapies gives an opportunity to midwives for providing holistic care and enables them to respond to the community and women's needs.

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