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Breathe a breath: Dawn of a new beginning

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Abstract

Pregnancy is a special feeling and special time for the mother-to-be, where she should take special care for her body as every action of hers will affect her baby. Every woman experiences pregnancy differently with a mixture of stressful and joyful moments that come along with it. Childbirth is a life-changing event for the woman and her family. Women should be safe during labour and birth. The birthing environment influences the feeling of safety and satisfaction in childbirth. The paper presents a paradigm shift that envisions how childbirth methodology has advanced, with a view to bring about a stereotype shift from restrictive birthing environment to relaxing birthing experience. Empirical evidence is needed to create awareness to support and equip midwives with multidisciplinary approach that are safe for women during labour.

Key words: Pregnancy, antenatal, breathing techniques, childbirth

Introduction

Maternal and child health services in the country are integrated within the broad umbrella of family welfare program, which is designed to provide integrated preventive, promotive, and curative services. Thereafter, Child Survival and Safe Motherhood (CSSM) program was launched in 1996-1997 in a phased manner, covering 100 districts of the states including Karnataka, which was specifically designed to improve health status and attempts to deliver the maternal and child health services as a package program, considering the total needs of mothers and children during health and disease. These initiatives have been succeeded by the Reproductive and Child Health Program Phase I (Matthews, Mahendra, Kilaru & Ganapathy, 2001). More recently, CSSM is

absorbed under Reproductive and Child Health services program, which provides faster attainment of goals, quality of service with priority and ensures desired impact.

Receiving antenatal care is a significant maternal service a woman receives during pregnancy to have an optimal health outcome, at the same time advocating institutional delivery and providing immediate postnatal care, especially within 48 hours after birth is critical to ensure the health of the mother and her newborn. Thus, providing good continuum of care during antenatal period helps the mother seek treatment on time and also prepares the mother for childbirth.

Reproductive health is a universal health challenge, in which the slightest progress was witnessed in the year 2015 (Lassi, et al., 2016). Every minute, a woman dies in pregnancy or during childbirth (Simwaka, Theobald, Amekudzi, & Tolhurst, 2005). Maternal Mortality Rate (MMR) of India shows a significant decline from 212 in 2007-2009 to 178 in 2010-2012, and in Karnataka MMR is 144 (<http://www.censusindia.gov.in>). India contributes to 25% of disability-adjusted life-years lost due to maternal conditions alone which is a grave condition (Vora et al., 2009).

The country's progress towards achieving Millennium Development Goal (MDG) 5 to improve maternal

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health has been off track, however the quality of maternal care remains a concern. The off track MDG's was then extended and recommitted by providing focused and scaled-up assistance in line with relevant support program, to meet this immense challenges to sustainable development by 2030, which came into effect on 1st January 2016 and will guide decision's to be taken over next 15 years (United Nations, 2015). The challenge at the hands of the health care providers for the next 15 years is to render timely, anticipatory, rehabilitative, supportive, and educative maternity care services to the mothers, which allow them to have a safe and a satisfying labour experience with little or no complications.

In India, the birthing environment is restrictive with a routine use of medications, IV fluids, continuous electronic fetal monitoring, tons of procedures carried out... all of these are part of a typical labour. Health and well-being of a mother and child is a public health concern because both the mother and fetus have special health needs that cannot be catered by general health services (Vora et al., 2009). This paper intends to examine the benefits of a cost effective, learned and practiced self-controlled non-pharmacological technique, which helps in the dawn of the new beginning.

Towards the end of the twentieth century, different versions of paradigm shift were witnessed. Larry Dossey's (1994) version is helpful in envisioning how new childbirth methodology may advance in the future. Three eras of medicine were proposed by the author, era one is a physical model, in which physicians extensively used systems of medicine like allopathy, homeopathy . . . in treating childbirth and the role of the mother is passive, era two refers to the psychosomatic model, where scientists or physicians tried to connect body and mind, but still felt body to be local, and era three model is transpersonal medicine, which is based on unified mind/body- energy/body model. When this model is applied during childbirth, it works with transpersonal nature of the body, non-local nature, and great resource, where women can give birth with global awareness as an action of evolutionary childbirth. (Newman, 2015)

Pregnancy is a distinct condition where a mother-to-be undergoes physiological changes that is supplemented

by physical and psychological burdens. Hence, need arises to manage physical, emotional, psychological, and discomfort states that arises at various stages of pregnancy and labour. Thus, the well-being of women is the need of the hour for optimal pregnancy outcome, seeking self-soothing techniques like music therapy, aroma therapy, hydrotherapy, kneading, stroking, reflexology, etc., and providing labour information and relaxation are significant in this transition time (Beddoe & Lee, 2008). Self-soothing techniques, psycho education, and relaxation are important during this change over phase. Employing any of the self-help comfort measures would contribute to the labouring mothers' overall sense of comfort and well-being.

Relaxation is a skill that is fundamental, not only during delivery process, but also in the day-to-day life. Relaxation is not a passive activity but a conscious active entity. Thus, relaxation may not come naturally to many, but practice will aid in their learning (Lauer, 1992). A systematic review done to appraise the assistance of relaxation in treating or preventing preterm labour using different forms of relaxation techniques, reports that there was an increase in the birth weight (*MD* 285.00 g; 95% *CI*s [76.94, 493.06], fewer caesarean deliveries (vaginal delivery; risk ratio (RR) 1.52; 95% *CI*s [1.13, 2.04], (cesarean section; RR 0.38; 95% *CI*s [0.19, 0.78]) (Khainmann, Pattanittum, Thinkhamrop, & Lumbiganon, 2012)

Breathing is an umbrella term which covers all dimensions of well-being and is a free tool that improves life at every level from birth until death. It is one such way that links the mind and the body and is a gateway between the conscious and the unconscious (Katy, 2000). This is because breathing is the only function in the body that is voluntary as well as involuntary. Inhaling more oxygen helps to ward off disease and infections. Almost 70 percent of toxins are expelled through breathing. (Grof, 2014)

Birthing experience should be a memorable one to all mothers. Thus, breathing exercise aims at better labour outcome by avoiding unnecessary interventions and preserving a mother's autonomy and ultimately enabling women to attain self-control. Practicing breathing during pregnancy leads to a feeling of ease during labour and after labour, reduces the experience

of labour pain, and a shorter duration of total labour time (Chuntharapat, Petpichetchian, & Hatthakit, 2008)

Benefits of breathing during pregnancy

Breathing creates a positive effect on the emotional health and provides women with clear mind and center her feelings (Bribiescas, 2013). Circulating endorphins, an endogenous opioid, released during breathing also play an important role on a labouring woman's sense of well-being. They act by binding at Opiate receptor sites and blocking pain perception. High levels of endorphins induces spontaneous onset of labour and natural birth (Ward & Hisley, 2009). In addition, breathing (Ji & Kyoul, 2009) helps to manage pain during postpartum recovery and discomfort and also during early breast feeding (Bonura, 2014).

A randomized controlled trial reported that no difference was found in the maternal pain (mean difference 0.23, 95% CI 20.738 to 1.184; P5.64) and maternal level of anxiety (RR 0.87, 95% CI 0.318–2.40; P5.99), but stated an increased level of maternal satisfaction in the breathing group (mean difference 2.57, 95% CI 0.843–4.291; P5.005) which was done among sixty low risk primigravid mothers to determine the effectiveness of breathing patterns during active phase of first stage of labour, using a state-trait anxiety inventory and visual analogue scale (Boaviagem, et al., 2015)

A cross sectional study was conducted to determine the efficacy of breathing, which was one of the components of a yoga program, on 335 mothers attending antenatal clinic in Bangalore on the pregnancy outcomes. The study reported that the babies weighing ≥ 2500 grams at birth were significantly higher ($p < .01$), the number of preterm labour was significantly lower ($p < .0006$), and complications like intrauterine growth restriction ($p < .003$) and pregnancy-induced hypertension (PIH), with associated IUGR ($p < .025$) were also significantly lower among mothers who practiced breathing. Thus, it is recommended that integrated approach to yoga, including breathing is safe during pregnancy (Narendran et al., 2005) ISBN : "1075-5535 (Print.

A quasi experimental study revealed that maternal weight gain ($p < .001$), pain experienced during labour ($p < .001$), discomfort after delivery ($p < .001$), and infant's birth weight ($p < .001$) were significant among

healthy pregnant women with gestational period of more than 20 weeks and practiced Qi going breathing during pregnancy (Ji & Kyoul, 2009).

A randomized controlled trial was done in India among 68 high risk pregnant women, to investigate the efficacy of yoga, including breathing, in controlling pregnancy induced conditions. The study found that there were significantly fewer women suffering from pregnancy induced hypertension ($p = .018$), preeclampsia ($p = .042$), gestational diabetes mellitus ($p = .049$), and intrauterine growth ($p = .05$), and significantly a lesser number of gestational age babies ($p = .006$) and babies with low APGAR scores ($p = .033$) were born in the intervention group. The study concluded that yoga, including breathing, is not only beneficial in preventing conditions that arise during pregnancy, but also improves neonatal outcomes (Rakhshani, Nagarathna, Mhaskar, Thomas, & Gunasheela, 2012).

One of the most common complaints during pregnancy is progressive low-back pain, especially in the lumbosacral area. Exercises focusing on stretching and strengthening of the back and abdominal muscles are often recommended to relieve pregnancy-related pain. Martins and Pinto e Silva, 2014, concluded that Hatha yoga practiced for an hour per day for 10 weeks can significantly lower lumbopelvic pain during pregnancy.

Thus, breathing exercises do not require sophisticated gadgets and machinery. It only requires timely information and education and also the willingness to practice on the part of expectant mothers.

Conclusion

Breathing is an easily modifiable workout that can provide maternal and fetal benefits when practiced regularly during pregnancy as well as childbirth and its outcomes. This promising body of knowledge points to the improvement in physical measures, psychological domain, as well as improves self-efficacy and well-being of labouring mothers. Evidence is present that antepartum breathing exercises is well suited to pregnancy and has a positive outcome and more and more standardized programs along with Obstetricians should be conducted, which builds up evidence-based evaluations in a research environment.

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