



Review Article

A Descriptive Study on the Effect of Antenatal Yoga on Maternal Stress: Blessings to Garbhini

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Abstract

Vitality on the planet commences since eternity. Women have a significant position in renewing the esprit progression by giving birth to lads. Gestation is a span when one lass is thriving and developing in the foetus. Now the question is who can deliver a healthy child? What kind of woman is capable physically and mentally of producing an offspring who has no internal or external impediments? Well, here is a simple and agreeable answer. A female whose physical and mental prominence is up to mark can conceive healthy offspring. A healthy mother and healthy baby can complete a family. During these contemporary times, everyone's vivacity is influenced by a hasty lifestyle. An expecting woman also lives in this unusual period and has to regulate her customary complications of this duration. Gestation is a jaunt when women have to face physiological, psychological, volatile and civic challenges. Her life practically becomes a roller coaster by having mood swings, nausea and unexpected temperament. This is quite normal. Expecting women must face numerous stressors during their incubation. They must endure anxiety and other mind-related predicaments during gestation. They must regulate stress and the deterrence of cognitive and biological conditions. There are several procedures for governing anxiety and retaining fitness during this period and what is a better cure than Yoga? That's right folks, Yoga is the most fundamental method for the precluding and advancement of temperament. This research has been executed to recognize the impact of antenatal yoga during gestation. In this study, I am referring to yoga asanas (Yoga Pose), Pranayama (Breathing Technique) and Meditation (Dhyana) as equipment for practising peace and inner fulfilment during incubation. Antenatal yoga is an assortment for pregnant matriarchs for their comprehensive wellbeing.

Keywords: Antenatal Yoga; Stress; Pregnancy

Introduction

Gestation is an extraordinary period for every female (human or an animal even). Becoming a mother is the greatest bliss a woman can feel. It is quite the truth that no number of worldly pleasures can compare to this boon given by the almighty. It is priceless, timeless, and simply wonderful. Every member of the family relates to this little one willing to spring out from his mother's insulating womb. So many dreams and aspirations relate to this new life. All women experience this transition with distinctive aspects. Incubation is a period of multiple modifications such as a woman's physique, sentiments, and connections developing gradually. These alterations often add new pressures to the stamina of the pregnant woman who remains constantly withheld with chores and other duties. The scepticism and mood swings during incubation

fluctuate from verve exhibitions like any ailment, the demise of proximate or pal, household liaisons, monetary or civic crises etc. Stress in pregnancy has the probability to induce morbidity in a mother's mind [1].

A handful of worries during incubation is typical, like in other moments of verve. But if the pressure comes to be persistent, it influences the mother and it can affect the tot also. When an expecting woman is worried, her physique goes into a "fight or flight" behaviour. There is a secretion of cortisol and other anxiety hormones [1]. The Notion of being under stress is familiar during incubation, but too much anxiety can make a woman sensitive. Anxiety can make her irritated and angry with everyone and everything. She can have trouble sleeping, have headaches, loss of appetite etc. Elevated degrees of stress that remain for a long duration may induce health dilemmas like high blood pressure and heart malady. Tension can heighten the likelihood of having a premature

new-born or lower the weight of the new-born [1].

Yoga is a chronological mind-body process that emanated in India. Currently, yoga practice has become increasingly prominent and is wielded in progressive nations as a restorative procedure for several immunological, neuromuscular, psychological and other body pain ailments [2] Yoga can induce a crucial role in our vitality by regulating the capacities of our psyche i.e., ego, longings, and intellect [3]. Gestation is a situation in which women encounters diverse physiological modifications and the element of pressure is escorted by unusual bodily and psychological cravings. There ensues a necessity to organize the numerous biological, psychological, volatile, and scholarly states that ensue throughout gestation and labour [4].

Yoga is a denomination of bodily, cognitive & ethical disciplines which roots in bygone India. Yogic practices like Asana, Pranayama, and meditation for the equilibrium of psyche and our assemblage of flesh and blood [5]. Yoga is also hailed as a mind-body therapy that establishes homeostasis in the psyche and essence. It is extensively acknowledged for its aptitude to formulate symmetry along impulsive, cognitive, corporal, and conscientious magnitudes [5]. Yogic discipline is to amend the nervous system constraint and physiological system functioning and also it's also beneficial for enhancing psychological well-being [5].

Nevertheless, we cannot deduce the exact and immediate impacts of stress on the process of incubation. But stress-related hormones influence a function in inciting specific gestation obstacles. Pressing or long-lasting strain may implicate the immune operation, which can generate possibilities of uterus affliction. This type of illness can cause premature delivery. Tension also affects how babies concede to certain conditions. Pressure may also affect the babe's savant advancement and immune process [6].

The Influence of Stress on Pregnancy and its outcome

Hobel pertains to the bodily rigging and courses by which tension may lead to preterm birth. In the non-pregnant state, the hypothalamic-pituitary-adrenal (HPA) modulates the patient's reaction to an environmental stressor [7]. The Principal molecular controller of the HPA axis, Corticotrophin releasing hormone (CRH), is often cited as the arbitrator of the anxiety acknowledgement. The brain perceives this as a sensitive setting stressor. The discharge of CRH enables the waiver of adrenocorticotropin hormone (ACTH) by the Pituitary gland. The ACTH is then carried through the systemic circulation to the adrenal gland where it accelerates the synthesis and secretion of cortisol, a glucocorticoid that conducts as the major anxiety hormone by interacting with a sequel of regulatory cogs. The acute stress response is deactivated by the litigation of cortisol, which stifles the constant furloughs of ACTH at the level of the hypothalamus. Under the situation of continual stress, the above mechanism ceases to function and

steers to exhaustion and persistent surges of cortisol [8]. The noteworthy aspect of the HPA axis procedure during incubation is the modification in the acknowledgement device that happens. In discrepancy to the glucocorticoid, suppression of the ACTH and CRH at the degree of the brain that ensues in nonpregnant selves, glucocorticoids during pregnancy stimulate CRH gene manifestation in the placenta, stemming in a positive response loop that results in a developed 20-fold gain in the CRH level (of the placenta) across the course of pregnancy [8]. Along with this increase in the CRH, binding also enhances pregnancy, curbing the bioavailability of free CRH. Hobel showed that CRH levels boosted and the CRH binding protein lessened more dramatically in women at risk for preterm delivery concluding in a mid-pregnancy. There was also an increase of free CRH in women who afterwards produce preterm. Formerly, it has been indicated that maternal cortisol levels at as early as 15 weeks of gestation foretell the rise of CRH, giving an additional indication of how the hormones of anxiety function to lead to early parturition [8]. During gestation the placental CRH discharge may not only analyse maternal psychophysiological levels of strain but also enables the foetus to clamber a reaction to pressure [8].

Literature Review

The analysis demonstrates that prenatal stress can have substantial outcomes on incubation, maternal temperament, and the advancement of humans across their lifespan. These factors may influence the risings of prenatal stress. Physiological transitions are seen on the evolving foetus, or the impacts of prenatal difficulty are observed on the maternal vigour and its consequence are not good. Research indicates that activation of maternal tension results in changes in the function of endocrine and inflammatory movement that plays an important function in the aetiology of these impacts [9].

A review by Beddoes, P Yang, Kennedy (2009), evaluated the possibility and level of reception of conscious yoga intervention empowered during incubation. On the potency of the intervention in curtailing distress [10].

Babber, Parks-savage & Chauhan (2012) pointed that "the peripartum outcomes of yoga during pregnancy including the postpartum period and lactation". They surmised that performing yoga during gestation can relatively lower discomfort and distress and discern anxiety. It aids in the restoration of the integrity of vi-

tality in manual domains [11].

Momoko K (2016) has researched the unexpected aftermaths of yoga on the anxiety response during pregnancy. This observation demonstrated the abrupt stress compression resulting in the utterly positive effects of yoga during incubation [12].

Significance of yoga during Pregnancy

Yoga is an expansive technique that wields the stances of Yoga Pose (Asanas), breathing practices (pranayama), Concentration (Dharna) and Meditation (Dhyana) [13]. Yoga influences our nervous system and legislates physiological operation functioning. i.e. immune, endocrine, neurotransmitter and cardiovascular. Yoga also enhances psychological well-being i.e. The commonness of constructive states of disposition, sanguinity and furthermore. Performing yoga can inevitably increase biological health that comprises resilience, flexibility, and perseverance [3]. Yoga concentrates on contemplation concurrently with a physical standpoint and it is being assigned in the process of incubation since the 20th century [14]. The encouraging influence of yoga during gestation is expressed in various surveys. It is emphasized that expecting women who perform yoga practices have rare pregnancy crises, difficulty, scepticism, sadness, and pregnancy-related troubling ordeals. Meditation bestows alleviating outcomes to the psyche and instructs the pregnant lady for psychologically lenient labour.

Numerous yoga asanas deliver more leeway in the pelvis area that enables the simple ouster of the foetus during childbirth [22].

The Three trimesters of pregnancy

A normal gestation lasts 40 weeks from the initial day of your last menstrual period to the delivery of the new born. It is halved into three phases known as the trimester: first trimester, second trimester and third trimester. The foetus withstands many transitions throughout development [1]. The beginning of Pregnancy is just like a prodigy. You can't but stop believing in the creator who has chosen you to bore a new life inside your body. Has made you strong enough to endure the aches and pain that come along with it. Think it up, every sole human that ever prevailed, and exists forthwith, commenced like this. It is unprecedented.

First Trimester (0-3 Months)

The first trimester is extensively critical to the baby's growth. During this duration, the baby's venter configuration and component, systems are formulated. Maximum Miscarriages and biological deformities arise during this interval. During this initial trimester, women's physique experiences essential reversals. These modifications continually induce a mixture of indications like repugnance, tiredness, breast tenderness and frequent urination [1]. These kinds of signals are encountered usually but it differs from person to person.

Yoga Asanas Practice in First Trimester

No	Name Of Asanas	Beneficial Effect
1	Tadasana	It enables to enhance dexterity and blood circulation. It assists to tone the core muscles. It encourages bolstering the back, hips, and limbs.
2	Vrikshasana	It tightens the limbs, back and arms that stimulate the assemblage. It supports enhancing attention.
3	Ardha Katti Chakrasana	This Asana tones up the waist muscles, back and hips. It lessens the sensation of levity and renders relief from biological and cognitive anxiety.
4	Trikonasana	This Particular, Asana stretches calf muscles, hamstrings, and hip muscles. It strengthens limbs and improves the spinal span of action. It betters the upper back tension, boosts mental as well as physical stability. It helps to improve digestion and reduce stress.
5	Virabhadrasana 2	It aids to tighten hips, groins, and shoulders. It clears the chest and lungs. It also assists in exercising your weary legs. It boosts circulation and breathing. It produces endurance and pursuit.
6	Baddha Konasana	This particular, asana gifts the digestive procedure and assists in lessening numerous belly disorders. It helps in toning the potencies of the female pelvic area. Along with introspection, it reduces cognitive pressure.
7	Vajrasana	This Asana enhances the digestive system which improves energy uptake. Vajrasana alters the flow of blood and nervous system tendencies in the pelvic area. It alleviates stomach syndromes like hyperacidity, and it is the sole asana that can be practised after taking meal.

Table 1: Yoga Asanas for First trimester [14].

During the first trimester, while performing asanas ladies must discipline fundamental yoga postures with occasional adaptations. Please avoid inversion, fastened curl and back band that might condense the uterus or overstretch it, which results in poor blood circulation into the uterus. Facilitate extended leisure, pranayama, and Meditation [4].

Second trimester (4-6 Months)

During the succeeding trimester of gestation, several women feel relaxed with all three trimester. Most initial gestation signs will ease up or even cease. During this trimester, specific signs may continue like heartburn and constipation. Maximum pregnant ladies commence their prenatal training during this trimester. Some ordinary difficulties include backaches and mental stress, etc. [1].

Yoga Asanas Practice in Second Trimester

No	Name Of Asanas	Beneficial effect
1	Tadasana	It works to augment deftness and improvise the flow of blood. It also encourages to tone abdomen muscles. It also allows bolstering the back, hips and limbs.
2	Vrikshasana	It tightens the legs, back and arms that incite the essence. It also improves concentration.
3	Ardha Katti Cakrasana	This asana strengthens the muscles of the midriff, back and hips. It curtails the sensation of levity and alleviates biological and cognitive pressure.
4	Trikonasana	This asana betters the stretches of calf muscles, hamstrings, and hip potencies. It enables to bolster the limbs and heighten the spinal spectrum of movement. It enables to ease the upper posterior friction and increases cognitive as well as physical durability. It improves digestion and reduces inconvenience.
5	Virabhadrasana 2	This Asana comforts you to stretch hips, ground and shoulders. It unlocks the chest and lungs. It helps to prod the exhausted limbs. Virabhadrasana also enhances circulation and the respiratory system. It manufactures endurance and vocation.
6	Baddha Konasana	Adding on, we have Baddha konasana that facilitates abdominal organs, ovaries, bladder, and kidneys. It aids to ameliorate exhaustion and helps to ease childbearing.
7	Vajrasana	This Asana enriches the digestive process that increases your endurance uptake. It Modifies the flow of blood and the nervous system propensities in the pelvic region. It soothes the paunch ailments like hyperacidity and it is the foremost asana that can be practised after taking chows.

Table 2: Yoga Asanas for Second Trimester [15].

Third Trimester (6-9 Months)

During this trimester generally, women suffer from the feeling of uneasiness. They feel uncomfortable due to the augmentation of the foetus. There are myriad physiological upheavals during this trimester. All we can conclude is this trimester is very, very critical for childbearing.

Yoga Asanas Practice in Third Trimester

No	Name of Asanas	Beneficial Effect
1	Trikonasana	This Asana works for the entire vertebral Colum exercise, unlocking stiffness and enabling to obtain a powerful equilibrium that can assist the mother physically and mentally.
2	Virabhadrasana 2	This second form of Virabhadrasana aids to intensify the power of thigh muscles. It stimulates the body, facilitates equilibrium and resilience, also enhances respiration, creates stamina and concentration, and enhances the flow of blood circulation.
3	Baddhkonasana	It elicits your abdominal parts, ovaries, bladder, and kidneys. It also reduces the feeling of exhaustion. It aids and gives an ease of childbirth to the expecting mother.

4	Vajrayana	This Asana enhances the digestive process which strengthens the uptake of energy. Vajrayana modifies the flow of blood and nervous system stimulants in the pelvic area. By doing this asana the lady feels a Relief in the belly ailments that include hyperacidity. Furthermore, It is the only asana that can be practised after having repasts.
5	Viprtikarni with wall Support	Its privileges are quite delightful to feel. This asana when performed with wall support is a great way to deal with depleted limbs and feet. It cures the pain of headaches and sends relief to the brain from the signs of sleeplessness. This pose soothes your mind and steadies your nerves.
6	Marjariyasana	This Asana encourages the body to discharge anxiety through the posterior and gently heats the backbone and kernel. It is useful to build extra aperture in the abdominal region and move your ridge in varied ways.
7	Mala asanas	This asana stimulates the range of movement of the hips. Women can perform this for getting a normal delivery.
8	Chhakkichalāsana	It is an exceptional asana for toning the brasses and muscles of the pelvis and stomach and readying them for labour.

Table 3: Yoga Asanas for Third Trimester [15].

Importance of Pranayama during Pregnancy

Pranayama is known to modulate autonomic output. The Pranayama also helps in achieving and maintain autonomic balance between the sympathetic nervous system and parasympathetic nervous system [16].

Pranayama is universal medicinal way to cure the attacks of anxiety, stress and bad thoughts that occur during your prenatal period. Especially for the ladies who are expecting can perform the various stages of pranayama after consulting with their doctors.

Pranayama Practice during Pregnancy (All Trimester)

No	Name of Pranayama	Beneficial effect
1	Nadi Suddhi	Nadi Suddhi is the purification of body systems. It boosts in maintaining equilibrium and relaxes the nervous system. It decreases the chances of headache, eliminates poisons, accumulates strength in the lungs, reduces anxiety and uncertainty. Research proves that women who practice this breathing habit have a pleasant temperament and their babies also get inner strength. So don't wait up. Do this for your child's healthy future.
2	Bharmari Pranayama	It assists in a quick solace from uncertainty, resentment, and apprehension. It supports the nervous system for calming the senses, curtains the blood pressure, decreases the chances of heavy migraines. And last but not the least, it also relieves the symptoms of insomnia.

Table 4: Pranayama Practice during Pregnancy [15,17].

There is yet another good news for the expecting happy mothers. You can practice the Nadi Suddhi and Bharmari Pranayama during all three trimesters. This exercise during gestation will lessen the inconveniences of maternal anxiety, personal hazards and will improve the outcomes of pregnancy. Practising the pranayama regularly, you will get a constructive consequence on the cardiovascular and respiratory processes. It will improve the

parasympathetic authority. This in turn diminishes the aftermaths of concern and fatigue on assorted systems in your body [18].

Importance of Meditation during Pregnancy

Several Analyses characterize that Yogic Practices like Asanas and Pranayama are valuable methods as antenatal yoga, but Meditation is similarly crucial during gestation An introspection is a key tool for managing maternal stress. As we all realize, rumination is practised only after performing some yoga asanas and pranayama.

No	Name of Meditation	Beneficial Effect
1	Ie. Yoga Nidra, Omkar, Nadanusandhan	It alleviates in mellowing your psyche, curtailing stress uncertainty and impatience. It also guides in having a better respite. It assists in positive labour trials. It also shuns out the risk of postpartum pessimism. It works to deter psychosomatic diseases as well.

Table 5: Meditation Practice during Pregnancy [14,17].

Discussion

Antenatal yoga is yet another way to calm the nerves of expecting mothers. It curtails the levels of anxiety. Strongly established on the analysis, I can declare there is a decline in the levels of anxiety after performing antenatal yoga. Yoga influences the hypothalamus to prevent the secretion of CRH, which will entail the anterior lobe of the pituitary gland to quell the furlough of the hormone ACTH so that the output of adrenal hormones and cortisol declines and orders the anterior lobe of the pituitary gland to exude endorphins [19].

Yoga will impede the gain in the sympathetic nerves so that the number of hormones that cause body deregulation will be curtailed [19]. The parasympathetic nervous system motions to impact catecholamine releases. As a result, there is a decline in heart rate, breathing velocity, blood pressure, muscle tension, metabolic rate and generation of hormones that provoke anxiety and stress [20].

Yogic practices like Yoga Asanas, Pranayama and Meditation during pregnancy is one profound way to motivate yourself for childbirth. These Asanas are bio-physio-psychological stances including Pranayama which is a psycho- neuro-physiological cleanse. Women have to face a lot of difficulties during all trimesters be it biological or cognitive. For curbing all negativity, the yoga practice is a unique antidote. It dissipates all sorts of tension, scepticism, and health-related problems. Antenatal yoga was associated with substantial removal in the anxiety of delivery and is potentially prophylactic against the surge in the indications of sorrow. There are ample benefits mentioned in the traditional books of medicines that glorify yoga. It’s a miracle indeed and a gift of our country’s ayurvedic legends who spent hours scribbling its advantages in the books for the reference of the future generation.

Conventional expectations of childbirth pedagogy are to curtail discomfort and distress through recreation procedures that have their inceptions in yoga [21,22].

Conclusion

In the end, we can declare that prenatal yoga is an outstanding method for any woman to equip herself fully into the joys of labour. She will blossom physically and mentally, and her body would be more than ready for childbirth. Yoga asanas can alleviate to ameliorate bodily pressure. These types of methods aid to bolster vitalities and affirm the nimble pelvic floor muscle that are utilized to relieve childbirth. The regular practice of pranayama and meditation can assist to reduce cognitive difficulty and expanding the aspect of respite. Antenatal yoga is bliss. It’s a windfall for people and a heavenly staircase for enjoying motherhood.

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