



Efficacy of Garbhasanskara for Good Progeny in Present Scenario

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ABSTRACT

During intrauterine life, the fetus is completely dependent on the mother. As a result, the health of the fetus directly depends on the health of the mother. Not only maternal nutrition, but maternal psychology, during pregnancy, has a significant effect on the health of the offspring and mother, too. Whatever emotional perceptions a woman has during her pregnancy are transmitted to the fetus. Ayurveda is an ancient science where all the measures are described under the title of *Garbhasanskara* to get a healthy and well-cultured child.

The word *Garbhasanskara* is composed of two words '*Garbha*' and '*Sanskara*'. *Garbha* means the fetus and *Sanskara* means *Parivartana in Guna* i.e., change in character. Thus, *Garbhasanskara* is basically aimed at providing fundamental care for good physical as well as mental set up of a child. It includes three stages viz pre-conceptual care to get healthy *Beeja* i.e. sperm and ovum, care during pregnancy for development of the fetus and postnatal care i.e. *Balasanakara*. The present paper, expresses the concept of *Garbhasanskara* and its relevance in the present modern era.

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1. INTRODUCTION

One of the most lovely aspects of being a woman is the ability to give birth to another life. A new life takes shape within her, is moulded, and is then born to be nurtured into a good human being. The famous Canadian scientist describes brain development and experience that "The experience in the womb shapes the brain and lays the groundwork for personality, emotional temperaments, and the power of higher thought from the moment of conception [1]. Ayurveda emphasized the importance of caring for the mother before, during, and after pregnancy, a long ago. Improper diet and lifestyle have a negative impact on fetal growth and can result in growth retardation and congenital anomalies. Prenatal maternal stress (PNMS) is a risk factor for autism and ADHD (attention deficit hyperactivity syndrome) [2]. PNMS is associated with side effects such as preeclampsia, depression, increased nausea and vomiting during pregnancy, preterm labor, low birth weight, and low APGAR score. [3] To avoid such dangers, Ayurveda prescribes appropriate diet, way of life, behavior, and clothing that are indigenous to a particular country and place, as well as using the same methods as they do. Proper care i. e. *Paricharya* before and during pregnancy, diet, behavior, and medications, ensures a normal pregnancy with a normal delivery of a healthy baby from a healthy mother. Garbhasanskara is best suited to caring for the unborn baby's physical, emotional, mental, and spiritual development, as well as the mother's health. [4] It seems, to be the scientific way leading to a good progeny, in the current scenario.

1.1 Aim

To establish the role and importance of *Garbhasanskara*

1.2 Objective

1. Conceptual study of *Garbhasanskara*.
2. To understand relevance of maintaining good physical and emotional status of mother and fetus in fetal outcome.

2. MATERIALS AND METHODS

Ayurvedic literature regarding *Garbhadahansanskara*, *Garbhiniparicharya*

(antenatal care) and its importance before and after conception was searched thoroughly. Similarly, its effects on fetal well-being were also studied. Other research journals, papers, books related to conception, pregnancy, stress, music, *yoga* and its effect, etc. were also explored to collect the matter.

3. RESULTS

3.1 Garbhasanskara in Classics

Psychology and nutrition of the couple play an immense role in conception. Maharshi Charaka opines that for the achievement of conception, happy mood is essential. It means that the specific environment and psychology of a couple during coitus might influence the chances of conception [5]. According to Ayurveda, the *tridosha Vata, Pitta, and Kapha* are interconnected to mental characteristics *Satva, Raja and Tamas*. The *tridoshas* also affect the balance of these mental characteristics. Therefore the happy mood of couple during coitus is advised by Ayurveda to maintain the balance of *doshas* in their body. The *Mana* of fetus attains the characters of *Satwa, Raja, and Tama*, etc. depending upon the psychological status of mother and father; the topics being listened by the pregnant woman, influence of deeds of the previous life, and specific practice of *Mana* [6]. He also describes that the effect of psychological state along with mode of life of mother produces abnormality of *Beeja* (ovum and sperm) resulting in congenital anomalies in fetus [7-8].

Maharshi Kashyapa says that what the female sees, remembers, or thinks after taking her bath on fourth day of menstruation, the child will have similar physical and psychological characteristics [9]. He advised *Bramhaghosha* i.e. *Vedic* hymns to be recited by *Brahmins*, songs and instruments to be played along with fumigation where the pregnant lady lives [10].

Maharshi Yogaratnakar enlisted that along with desired food she should follow a pleasing mode of life [11]. Under the heading of *Garbhopaghatakarabhava* (factors likely to harm the fetus), Maharshi Vagbhata, too has contraindicated grief, anger, fear, excitement by terming them harmful to fetus. He has just mentioned that the use of articles likely to harm fetus results either in *Garbhastrava* (abortion), or

intrauterine dryness (missed abortion or intrauterine death) [12]

Maharshi Sushruta opines that whatever type of diet, behavior and conduct is followed by the couple at the time of coitus, born child possesses similar characters [13].

These references form the basis of *Garbhasanskara* and highlight the fact that *Garbhasanskara* influences development of the child.

3.2 Garbhadhana Poorva Sanskara (Preconceptional Care)

Three months before conception, preconception care begins with the preparation of the couple planning conception. It begins with the age of copulation, Rajaswalaparicharya (menstrual cycle mode of living), Pindashudhhi (body detoxification) for healthy gametes (sperm and ovum), and specific Aahara for male and female. Psychology and nutrition of couples before and after fertilization play a great role. Preconception stress in either parent can impact germ cells, thus influencing development in one or more generations, resulting in trans-generational effects [14-15]. This stand in support of the statements of ancient Ayurveda scholars and emphasize the need of stress free lifestyle for healthy conception and pregnancy outcome.

Regarding diet, Maharshi Sushruta advises to take food comprising *Shali rice* with milk to the male partner and the food mainly comprising oil (sesame oil) and *Masha pulse* (black gram) to the female before coitus [16]. Maharshi Charaka, also mentioned that the man should use *Ghrta* and milk medicated with the drugs of *Madhuravarga* (sweet/anabolic drugs) and the woman should consume oil and *Masha* after the purifying measures and before coitus [17]. For women, Vagbhtahas recommended Phalaghrita and Mahakalyanakaghrita. Ayurveda commentators have explained that the *Madhura* drugs increase *Shukra* and *Pittakardrugs* increase *Rakta* [18-19].

The Ayurvedic diet described before conception for male and female is homologous to the properties of *Shukra* and *Aartava*, respectively, and is beneficial to improving sperm parameters, ovulation, and the factors responsible for conception. [20]. Recent studies show that the nutrition and fertility is linked to both the male and female. Malnutrition can adversely affect the

division and replication of cells in the embryo at pre-implantation stage in which cells divide and replicate most rapidly. It may cause restricted fetal growth, LBW, missed abortion, congenital anomalies etc. [21]. WHO also recommends pre-conceptional care to reduce maternal and childhood mortality and morbidity [22].

After these 3 months of protocol, copulation is advised in *Ritukala* (ovulation period).

3.3 Garbhadhana Pashchaat Sanskara (Post -conceptional Care)

If conception occurs, *Masanumasika Garbhiniparicharya* and other means of *Garbhsanskara* to be followed. These include

- *Garbhsamvada* (communication /talking with baby).
- *Garbhasangeeta* (music), reading good books/literature of great personalities
- *Garbhamantra* (chanting).
- *Garbhprathana* (prayer for fetus), *jyotirdhyana*.
- *Yogasana* with *pranayam*, *dhyana* (different postures with a breathing exercise, meditation).

3.4 Garbhiniparicharya

Ayurveda has described a systematic plan for *Garbhini* under the title *Garbhiniparichayra*. It prescribes *Ahara, Vihara & Vichara* (thoughts) as these have a direct effect on the health of mother & child. There are two types of management for *Garbhini*

- (a) General management (*Samanya Ahara & Vihara*)
- (b) specific management (*Masanumasika Pathya*)

3.4.1 General management (Samanya Ahara & Vihara)

The *Ahara* (diet) should be *Hridya* (liked), *Dravam* (liquid), *Madhuraprayam* (sweet in taste), *Snigdham* (unctuous), *Deepaniyam* (supporting digestion), & *Samskrita* (properly cooked) Good nutrition is important during implantation and early foetal growth. In addition to the routine food products, the *Garbhini* should be encouraged to take the following food items-

- a) milk & milk products which supply calcium
- b) food rich in proteins such as egg, meat, fish, pulses
- c) food rich in carbohydrates such as grains, cereals,

- d) starchy food such as cereals, pasta, potatoes
- e) plenty of fruits & vegetables that supply vitamins, minerals & fiber.

3.4.2 Month wise specific management [23-24] (*Masanumasika Pathya*)

3.5 Garbha-samvada (Communication with Fetus)

Hearing is the first sense stimulated in the fetus that promotes the development of the neural pathways. Brain development is linked to early auditory experiences. Noises from the placenta, maternal organs, and maternal voice all play a significant role as current in utero auditory stimuli, forming memories of his /her hearing experiences. [25-26]. It is also seen that fetuses respond to the father's voice but prefer the mother's voice after birth [27]. Attachment and communication are already established before birth through auditory and multisensory experiences [28].

3.6 Garbhasangeeta (Music for the Fetus)

Sama-veda, the *Veda* of chants, offers knowledge of music in 1549 verses. *Sama* means "melody". Classical Indian music originated from this *Veda*. Our stalwarts prescribed to hear music during pregnancy in *Paricharya*. It is possible to give energy to the development of the body, mind, and soul of a child in the womb by listening to special types of music like the sounds of *Veena*, flute, *Samveda mantras*, and trimester wise ragas with specific frequency for healthy progeny [29].

A practical research has done by the Scottish government, NHS on hearing and listening in the womb' from 0 to 24 weeks and then till birth with practical research. It is stated that between 0 and 16 weeks, the unborn baby is surrounded by sound, vibrations, and motions that are 'felt' through the skin and skeletal systems [30]. Shahidullah and Hepper illustrate that reactive listening begins at around 16 weeks. This is significant as the ear is not completely anatomically developed until 24 weeks. At 16 weeks the unborn baby is particularly receptive to its mother's voice. It is fascinating that around 24 weeks, the babies develop preferences for music while in the womb [31]

Recent research has shown that music can help pregnant women relax.. Music can also cause

foetal effects such as increased foetal movements and decreased uterine contractions. [32-33] An increase in fetal movement may be associated with fetal well-being. It has direct influence on emotions; behavior, and neurotransmitter systems. Music exposure causes a variety of endocrine effects, including changes in adrenal and gonadal steroid levels. These changes in a pregnant woman can affect neuroblast proliferation, axonogenesis, synaptogenesis, and neuronal organisation, all of which have an impact on cognitive performance and behavioural gestalt.[34]. In a nutshell, music can be highly recommended for prenatal relaxation since it also leads to maternal relaxation.

3.7 Garbhamantra (Sound of Mantra Chanting for Mother and Fetus)

"Mana na attrayate iti mantra" The mantra that saves mind

'*Mana*' means the mind; '*tra*' means deliverance, based on the vibratory aspect of energy and its modifications into the varied matter. As a result, a spiritual Mantra is a pure sound vibration that transports the mind from material to spiritual consciousness.. MantraShakti assists in the release of anxiety and stuck energy, both of which are causes of disease. Experience and experiments have shown that the correct frequency of Mantra sound, combined with the correct intent, helps the practitioner oxygenate the brain, reduce heart rate and blood pressure, aid in creating calm brainwave activity, and cure many ailments. [35]. Thus, in expectant mother *Mantra* chanting can prevent pregnancy-induced hypertension, intrauterine growth retardation.

3.8 Garbhaparthana-Jyotirdhyana (Meditation)

Prayer for the fetus can be done alone or with family members in front of the lamp (*Jyoti*-flame).

Light symbolizes knowledge which keeps us free from the darkness of ignorance. Knowledge removes ignorance just as light removes darkness. As a result, the lamp is lit, and we bow before it, because knowledge is the greatest form of wealth. During special events, it is kept lit as a guide and witness to our thoughts and actions. The traditional instrument represents our Vasanas, or negative tendencies, while the wick represents our ego. As the lamp burns, it

symbolises the annihilation of our bad habits and bodily ego. The flame burns upward, as knowledge also takes our views higher [36].

3.9 Yogasana, Pranayam, Dhyana (Yoga)

Yogic postures, *Pranayam*, meditation are some special efforts taken to stimulate baby's senses gently from outside to relieve maternal stress, improve maternal psychology resulting in maximum development of the physical and intellectual ability. The ancient, as well as modern medical research, speaks about the intimate relationship between our breathing patterns and our physical, emotional, mental, and spiritual health. It not only increases longevity but also supports overall well-being, self-development and helps in medical conditions. Now, Yoga is well accepted globally. Anulom-Vilom Pranayam has a significant effect on

Systolic Blood Pressure and has a positive effect on digestion and mental freshness [37].

Researches show that *Bhramari pranayama* causes a significant reduction in cardiovascular hyper-reactivity. Pranayama is known in yoga to modulate autonomic output and restore the balance between two components of the autonomic nervous system – sympathetic and parasympathetic. The *Bhramari pranayama*, in particular, has been shown to stimulate the parasympathetic nervous system [38].

The nasal tone humming/buzzing mmmm sound slow nasal exhalation boosts the production of nitric oxide which is a vasodilator, improves blood circulation and oxygen to the heart, decreases plaque growth (which causes atherosclerosis) and blood clotting, lowers high blood pressure [39].

Table 1. Month wise diet regimen

Months	MaharshiCharaka	MaharshiSushruta	Possible effect
1 st	Non medicated milk	Sweet, cold, and liquid diet	Fulfills required
2 nd	Milk medicated with <i>Madhura (Kakolyadi)</i> group (herbs that are not astringent in nature)	with above diet, especially cooked <i>Shashti rice</i>	nourishment and prevents dehydration, hypoglycemia, <i>ghrita</i> relives constipation caused due to progesterone effect, improves appetite.
3rd	Milk with honey and <i>Ghrta</i> .		
4th	Milk with butter 1Aksha(2tola=20 grams)	Cooked <i>Shashti</i> rice with curd,	It pacifies <i>Tridosha</i> , good source of iron, having antioxidant property; rich source of protein essential for tissue development
5th	<i>Ghrta</i> prepared with butter extracted from milk	Dainty and pleasant food mixed with butter meat of wild animals	
6th	<i>Ghrta</i> prepared from milk medicated with the drugs of <i>Madhura</i> group	<i>Ghrta</i> or <i>Yavagu</i> (rice gruel) medicated with <i>Gokhshura</i>	Good diuretic prevents retention of water, dysuria due to pressure on ureter by uterus around 24 weeks.
7th	Same as 6 th month	<i>Ghrta</i> medicated with <i>Prithakparnyadi (Vidarigandhadi)</i> group of drugs-(specific group of herbs that promotes nourishment)	Diuretic, anabolic, relieves emaciation, suppress <i>Pitta</i> and <i>Kapha</i> .
8th	Rice gruel prepared with milk and mixed with <i>Ghrta</i>	<i>Asthanabasti</i> prepared with <i>Badar Qwatha</i> (decoction of a herb in the form of enema)	Enema to clear retained faeces
9th	<i>Anuvasanabasti</i> (type of enema)with oil prepared with the drugs of <i>Madhura</i> group or vaginal tampon prepared with the same.	unctuous gruels and meat soup of wild animals	Increase elasticity of birth canal. Effect on autonomous nervous system governing myometrium and help in regulating their function during labor

Table 2. Ref-1-Exercises that keep you fit during pregnancy by Manashakti Research Center

Sr.no	Recommended postures/prayers	First trimester	Second trimester	Third trimester
1	Prayer	Yes	Yes	Yes
2	<i>Manibandhanaman</i> (wristbending)	Yes	Yes	Yes
3	<i>Manibandhachakra</i> (wrist rotation)	Yes	Yes	Yes
4	<i>Kehuninaman</i> (elbow stretch)	Yes	Yes	Yes
5	<i>Skandhachakra</i> (shoulder rotation)	Yes	Yes	Yes
6	<i>Greevasanchalan</i> (neckmovements)	Yes	Yes	Yes
7	<i>Janusanchalan</i> (knee movements)	Yes	Yes	Yes
8	Yogasana			
9	Standing posture			
10	<i>Ardhakatichakrasana</i>	Yes	Yes	Yes
11	<i>Ardhachakrasana</i>	Yes	Yes	Yes
12	<i>Ardhamatsendrasana</i>	Yes	-	-
13	<i>Trikonasana</i>	Yes	Yes	-
14	<i>Ardhaushtrasana</i>	-	Yes	Yes
15	Sitting posture			
16	<i>Vakrasana</i>	Yes	-	-
17	<i>Ushtrasana</i>	Yes	Yes	-
18	<i>Shashankasana</i>	Yes	-	-
19	<i>Ardha-ushtrasana</i>	Yes	Yes	-
20	Butterfly	-	-	During 9 months
21	<i>Baddhakonasana</i>	-	-	During 9 months
22	Supine posture			
23	<i>Shawasana</i>	Yes	Yes	In lateral position during 9 months
24	<i>Pranayam</i>			
25	<i>Anulom-vilom</i>	Yes	Yes	Yes
26	<i>Bhramari</i>	Yes	Yes	Yes
27	<i>Shantimantra</i>	Yes	Yes	Yes

3.10 Month wise yogic practices

3.10.1 Ministry of women and child development, Government of India in collaboration with ministry of AYUSH Government of India

Recently guided yoga programs for pregnant women have become prevalent and are conducive to utero-fetal-placental circulation and improvements in labor and birth outcomes. These *Asanas* help to improve body posture, strengthens abdominal, pelvic, and thigh muscles, maintains the flexibility of pelvic joints which enables them to various positions during labor. The ligaments are more elastic which in turn can help to reduce labor pains, relieves backache which is common in pregnancy [40].

4. DISCUSSION

The relationship between a mother and her foetus is a one-of-a-kind symbiotic union.. During the prenatal and postnatal periods, the mother's diet, behavior, and psychology have a significant

impact on the child's physical and mental development. It has been proven that every activity of the mother during pregnancy, such as Samvada (talk), Prarthana (prayer), Manashakti (positive thinking/emotions), and Sparsha(touch), is not only recognized by the unborn baby but also has a positive effect on physical and mental health.

According to the evidence, foetal growth is most vulnerable to maternal nutrient deficiencies during the pre-implantation period and the period of rapid placental development.. Nutrition is the most important intrauterine environmental factor that affects foetal genome expression and may have long-term consequences. Changes in foetal nutrition and endocrine status, for example, may result in developmental adaptations that permanently alter the structure, physiology, and metabolism of the offspring, predisposing individuals to metabolic, endocrine, and cardiovascular diseases.in adult life.Thus ,Garbhasanskara seems to be the path leading to modern epigenetic engineering.

Thus, the goal of Garbhasanskara is to raise a child who is healthy, happy, full of virtues, well-cultured, intelligent, and blissful. All the evidences, whether from modern studies or ancient Garbhasanskar practices, establishes that pregnant women must live in a positive environment, think positively, and remain happy and peaceful to have a healthy child.

5. CONCLUSION

Due to rapid industrialization and modernization, there have been massive changes in lifestyle all over the world. With this, women have emerged as equivalent contributors in work places and business industry. This definitely has brought changes in antenatal care, too. These circumstances emphasizes the need of *GarbhaSanskara*. In the present era, there is a need to adopt a lifestyle described by ancient science before and during pregnancy to avoid complications. According to *Ayurveda*, the act of '*Garbhsanskara*', has strong and direct effects on the child's physical and mental functioning. *Garbhsanskara* includes special efforts taken to stimulate the baby's senses gently from outside for the maximum development of its physical and intellectual abilities. It has also been linked with reducing stress by working as a coping mechanism. Studies have indicated that positive thinking increases maternal interactions with the fetus and generally reduces stress. As stated earlier, due to changes in lifestyle along with cultural and geographical difference practical implementation of Garbhasanskara may be a little difficult as well. Therefore with appropriate modifications, *Garbhasanskara*, supported by policy decisions, can be a very effective tool for pregnancy to avoid stress, anxiety, depression and to achieve healthy progeny.

DISCLAIMER

The study highlights the efficacy of Garbhasanskara, which is an ancient tradition, used in some parts of India. This ancient concept should be carefully evaluated in the light of modern medical science and can be utilized partially if found suitable.

CONSENT

It is not applicable.

ETHICAL APPROVAL

It is not applicable.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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