

## Effect of Moon Salutations in Pregnancy

**Dr Mayuri Khatavkar (PT)**

Department(s) and institution(s): Department of Community Physiotherapy,  
MGM College of physiotherapy

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### **Abstract:**

Pregnant mothers experience various discomforts throughout the trimesters. Along with physical complaints, psychological well-being has also of great importance. Thus, this case study aimed at assessing effect of moon salutations on flexibility and anxiety in pregnancy. The participants included in this case study, got recruited after their due consent. They were assessed on upper limb flexibility and generalized anxiety. A modified moon salutations protocol was applied for 3 sessions per week for 4 weeks. Post intervention assessment was taken. In results, it has shown improvement in flexibility of upper limb with reduction in anxiety. Moon Salutations has worked physiologically on 'Root chakra' (Mooladhar Chakra) of our body which has impact on flexibility and as it works on activation of Ida naadi i.e. parasympathetic nervous system, it has seen helped to reduce anxiety. Thus, we can conclude that moon salutations has positive impact in pregnancy.

**Key-words:** Moon salutations, pregnancy, flexibility,

### **Introduction:**

Pregnancy is an indeed phenomenon with full of crests and troughs. With journey of approximately 36 weeks, there may be various changes in one's body which each mother would experience. In India, according to National Family Health and Welfare statistics (2019-20), we are second largest populated country with total fertility rate of 2.2.[1] According to a study done by Nath A et al (2019), 55.7% pregnant ladies showed prevalence of anxiety.[2] As per recent literatures, approximately 42% of them reported upper back pain.[3] Both of which may resulted due to biomechanical deviations and muscular imbalance. As per mentioned, pregnancy causes various physiological changes influencing multiple system in

mother's body. We may predominantly see changes in musculoskeletal, cardiovascular, respiratory systems and also often noted changes such as mood lability, anxiety etc.[4] There is indeed need to address such discomforts and work on them with appropriate exercise regimens.

In 1969, one new approach named as Chandranamskara or moon salutations was invented in Yoga School of Bihar. Literature suggested that it works on stimulation of Ida naadi or parasympathetic nervous system. It consists of 27 lunar phases or extensive positions which are more likely to have an effect on flexibility as well as anxiety. Ansari U (2019) had quoted that it calms

the mind and reduces anxiety and stress in pre-menopausal syndrome. [5] Tripathy M (2017) had found a positive effect of moon salutations on aggression in adolescent. [6] Thus, this may be used as an adjunct with our routine antenatal exercise regimen. Although, this innovation is seem to be explored relatively less in recent literature. Hence, this case study was aimed at assessing the effect of moon salutations on flexibility and anxiety in pregnancy

### **Case History:**

Three antenatal mothers were recruited in this case series after obtaining their due consent. These pregnant ladies reported to a Women's health physiotherapy clinic from an urban set up. They belong to the age group of 25 to 35 years and were lying in their initial week of 2nd trimester. They were assessed by Back scratch test for upper limb flexibility and interviewed on Generalized Anxiety Scale (GAD 7) [7]. Then moon salutation protocol was explained to them and further administered for 3 days a week for 4 weeks along with left nostril breathing and Omkara as the components of this protocol. After completion of protocol, post-intervention assessment was taken and data was analyzed further. In the result, the demographic details showed that 29±2.9 years was their mean age with SD. All of them were having working occupation out of which one participant was doing her job by travelling to her workplace physically while other two had work from home. They had no other medical risks or comorbidities and with normal ultrasonography report. It was seen significant increase in upper limb flexibility between 1 to 3 inches. There

was also seen reduction in generalized anxiety score from mild (7 on 21) it was seen going to near no anxiety (2-3 on 21).

### **Discussion:**

This case series was aimed at assessing effects of moon salutations on pregnant ladies owing to various physiological changes that take place in this duration. Pregnancy is a unique phase of women's reproductive cycle. It has indeed various physiological changes in multiple systems of body, although certain musculoskeletal and psychological effects go unnoticed. There is seen anxiety which may get increased as per trimester under elevated levels of endogenous cortisol and change in leptin levels in response to hypothalamic-pituitary axis and autonomous response.[8] The effect of activation of Ida Naadi due to moon salutation tends to stimulate the parasympathetic nervous system. It is thought to utilize lunar energy through Ida Naadi. It controls all central processes. This also get benefitted more due to inclusion of left nostril breathing and Omkara and thought to induce relaxation and give calming effect. [9]. Anxiety occurred during pregnancy can be multifactorial. By giving this moon salutations may help to reduce its level by some virtue.

Flexibility may be a thought provoking factor in pregnancy as due to relaxin flexibility is bound to get increased. Although, Dunn G et al (2019) found various musculoskeletal prevalence of pain may happen due to awkward and sustained posture, sedentary lifestyle and lack of flexibility. [3] Extensive moon salutation

poses are thought to improve flexibility of overall trunk, upper limb etc. Root Chakra, located at the base of spine which has effect on improving flexibility and providing stability and security. [10] Thus, along with extensive poses, moon pose which may help to activate this chakra would help in reducing muscular tightness and in turn soothing postural muscles. Thus, from above discussion it can be

concluded that Moon salutations can be used as a part of cool down in pregnant ladies and can be included in antenatal protocol.

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