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Impact of Yogic Practices on Postnatal Depression Among Postpartum Women

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Abstract: The aim of this study was to look into how yoga practises are effective in postpartum women's psychological characteristics. Twenty postpartum women were randomly chosen as subjects for the study from Srinivasa Priya Hospital, Perambur in Chennai. The subjects were separated into an experimental group and a control group with 10 in each group. The Experimental group received yogic practices for a period of 8 weeks, while the control group continued to engage in active rest. Before beginning the training, all the 20 postnatal mothers took a pre-test on Edinburgh Postnatal depression questionnaire, throughout the sessions, the study's participants were observed. After the eight-week training programme, post-test on questionnaire was given to the same subjects in the interval of first week (pre-test), fourth week and eighth week. The 't' test was used to evaluate whether there was a significant difference between the means of the experimental group and the control group for the pre-test and post-test scores. A fixed level of 0.05 was used for the confidence interval. The psychological variable postnatal depression of the experimental group significantly decreased as compared to the control group. The results proved that yogic practices are beneficial for post-partum women for a healthy and happy post-natal period for mother and a baby.

Keywords: Depression, Postpartum women, Yogic practices, Yoga

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Introduction

The purpose of yoga is to achieve a state of harmony between one's mind, body, and soul. The postpartum and infant years may be easier to handle with the help of yoga and other types of exercise. Mood, vitality, and the likelihood of developing postpartum depression are all

bolstered by this practise, and the mother reports feeling more at ease in her body again.

Some preliminary research suggests that postpartum mothers' overall health might be enhanced by engaging in Hatha yoga (Bershadsky *et al.*, 2015). Both the mother's physical and

mental health need rest and recuperation after giving birth. Both may benefit from postpartum yoga, also called postnatal yoga. The calming effects of this kind of yoga on new mothers have been lauded, and it's especially useful for those suffering from postpartum depression.

The postpartum period is the six weeks following the birth of the baby. How to recover physically will depend on a variety of factors, including the type of labour and the delivery mother had, general state of health and the domestic support and social circumstances. As the uterus starts to shrink back to its pre-pregnant state in the first few days after the birth, mothers will have a very heavy blood vaginal discharge called Lochia. Lochia is made up of blood, mucus and tissue debris, all of which needs to be expelled from the uterus. The flow usually calms down after the first week and the appearance of the blood gradually changes from bright red to brown colour. The uterine contractions are caused by the hormone Oxytocin, which encourages the uterus to shrink back into the pelvis more quickly.

It is important to perform pelvic floor exercises after vaginal delivery, particularly if the mother had a long, drawn-out labour which will have stretched the muscles considerably the deep breathing helps the mother to tone their lower back and abdominal muscles. If the mother had a vaginal delivery, they can try gentle abdominal exercises during the first few weeks after delivery. If they had caesarean delivery, they are advised to wait until after six weeks of delivery.

The adjustment to becoming a parent was hardest in the weeks and months after the birth. Postpartum depression affects one in seven new mothers. The start of postpartum depression (PPD), defined as depressive episodes after delivery, comes at a pivotal time in a woman's life and may last for years. Moderate predictors of postpartum depression include anxiety over childcare, poor self-esteem, mother neuroticism, and a newborn with a difficult temperament. Problems related to pregnancy and obstetrics.

In order to accomplish this goal, we shall make reference to the selected psychological element. The Edinburgh Postnatal Depression Scale was used in order to arrive at a conclusion about the presence of postpartum depression. It is usual practise to use the Edinburgh Postnatal Depression Scale (EPDS) as a screening tool in order to diagnose postpartum depression in women. This scale was developed in the United Kingdom. No depression or mild depression (grades 0-6), moderate depression (grades 7-13), severe depression (grades 14-19).

The purpose of the study was to determine whether or not there would be a discernible difference in the incidence of postpartum depression among women who had just given birth.

The study's goal was to examine whether or not postnatal yogic practises mitigate postpartum depression in women.

The following was the inclusion criteria—(i) Readiness to take part in the research and provide written consent; (ii) No history of medical or obstetrical problems; (iii) Minimum 18-year-old mother condition' (iv) No caesarean!; (v) No prior experience with yoga or other forms of exercise; (vi) Certified as physically capable of engaging in yoga practise; and (vii) Inhabitants of Chennai. The Exclusion criteria were—(i) Various complications of pregnancy; (ii) major obstetric or medical related complications; (iii) had experienced major stress; and (iv) participation in yoga during the previous 12 months or simultaneous exercise.

Marina Reyad *et al.* (2022) studied whether there is a correlation between yoga and a reduction in postpartum depression. Forty new mothers suffering from postpartum depression (PPD) were included in the study. From twenty to thirty-five years old, they were considered middle-aged. They were underweight, with a BMI of less than 30 kg/m². Females' Zung scores might fall anywhere between 50 and 69 (moderate depression). This research was a randomised

controlled trial using an experimental design (two groups, pre- and post-test). Twenty women made up Group A (Control), and they were given antidepressants for a period of 12 weeks. Group B (the study group) had 20 female participants who also received the same antidepressant medication and yoga instruction as the women in Group A. Before and after therapy, members of both Groups A and B were questioned using a body mass index (BMI) scale and a Zung self-rating depression scale. The rate of decrease in the Self Depression Scale (SDS) between before and after therapy was significantly different between groups A and B ($P < 0.0001$), with a decrease of 9.53 and 16.68 percentage points, respectively. There was no statistically significant difference in the SDS scores of those in Group A and Group B before therapy. However, significant differences in the SDS were seen between groups A and B after therapy (with more improvement in group B; $P < 0.001$). These authors concluded that Yoga can be an effective method for addressing PPD.

Elizabeth *et al.* (2019) suggested that physical exercise, such as yoga, may be helpful for pregnant and postpartum women who are experiencing depression. To date, there has been just one randomised controlled trial (RCT) using a yoga intervention for postpartum depression ($N = 57$). Over the course of 8 weeks, participants were tasked with attending two weekly 1-hour yoga courses and engaging in self-guided at-home practise. Subjects in both groups showed statistically significant improvements in their depression levels between the pre- and post-testing periods. Participants in the yoga condition, on the other hand, reported a higher reduction in depressive symptoms between the pre- and post-intervention periods. Women in the yoga condition were more likely to report clinically meaningful improvement than those in the waiting condition (78% vs. 59%).

Materials and Methods

For the purpose of random group experimental study, twenty postpartum women were selected randomly using random sampling method from

Srinivasa Priya Hospital, Perambur in Chennai between the ages 21 to 30. The subjects were separated into an experimental group and a control group with 10 in each group. The Experimental group received yogic practices (Tables 1, 2) for a period of eight weeks, while the control group continued to engage in active rest. Before beginning the training, all the 20 postnatal mothers took a pre-test on Edinburgh Postnatal depression questionnaire, throughout the sessions, the study's participants were observed. After the eight-week training programme, post-test on questionnaire was given to the same subjects in the interval of first week (pre-test), fourth week and eighth week. The 't' test was used to evaluate whether there was a significant difference between the means of the experimental group and the control group for the pre-test and post-test scores. A fixed level of 0.05 was used for the confidence interval. The psychological variable postnatal depression of the experimental group significantly decreased as compared to the control group. The results proved that yogic practices are beneficial for post-partum women for a healthy and happy post-natal period for mother and a baby.

Results and Discussion

The Edinburgh postnatal depression questionnaire scores for pre-test in the first week in yogic practices group was 26.5 ± 1.58 and in control group 26.7 ± 1.63 , which shows that the t-value is 0.28. The p-value is 0.39, thus the result is not significant. After the yogic practices given for fourth week to the yogic practices group the pre-test results shows scores in yogic practices group as 20.2 ± 2.3 and in control group as 25.9 ± 0.87 . The t-value is 7.32. The p-value is < 0.00001 . The result is significant at $p < .05$ level. After the eighth week the yogic practices group the post test results shows 10.7 ± 0.94 and control group 20.8 ± 2.89 . The t value is 10.47. The p-value is < 0.001 . Hence, it is proved that yogic practices improved Edinburgh postnatal depression scores among postpartum women which is in line with study conducted by Marina Reyad *et al.* (2022).

Table 1: Yogic practices given to experimental group

S. No.	Yogic Practices	Time Duration	
		I Four Weeks	II Four Weeks
		50 Min	60 Min
1.	Pawanamuktasana series II	5 Min	10 Min
2	Sun Salutation	10 Min	10 Min
3	Selective Asana	20 Min	20 Min
4	Selective Pranayamas	5 Min	10 Min
5	Meditation	10 Min	10 Min

Table 2: Various Yogic practices

S. No.	Yogic Practices	S. No.	Yogic Practices
1	Pawanamuktasana series II	9	Shava Udarakarshan
2	Lying hasta uttanasana	10	Supta Udarakarshan
3	Leg locking	11	TTK
4	Pawanamuktasana	12	Uddhiyana bandha
5	Kandharasana	13	Kabalapathi
6	Uttana padasana	14	Nadi shodhana
7	Vyaghrasana	15	Bhramari
8	Pada Chakrasana- cycling	16	Meditation

Table 3: Computation of mean, standard deviation and independent t test for study group and control group on 1st, 4th, and 8th week interval

Variables	Yogic practices group		Control group	
	Effective mean $\pm$ SD	Paired t test t value P value	Effective mean $\pm$ SD	Paired t test t value P value
1 st Week To 4 th Week	6.3 (1.89)	10.55 P<0.001	0.8 (0.32)	1.92 P=0.087
4 th Week To 8 th Week	9.5 (2.95)	10.17 P<0.001	5.1 (2.51)	6.41 P<0.001
1 st Week To 8 th Week	15.8 (2.30)	21.72 P<0.001	5.9 (1.97)	9.47 P<0.001

Table 4: Effectiveness of yogic practices between the study and control group on paired and independent t test

Variables	EDPS Scores		
	Yogic practices group	Control group	Independent T test Yogic practices group
	Mean and Standard Deviation	Mean and Standard Deviation	P value
1 st Week (Pre-Test)	26.5 (1.58)	26.7 (1.63)	T=-0.28 P=0.39
4 th Week (Follow Up)	20.2 (2.3)	25.9 (0.87)	T=-7.32 P<0.001
8 th Week Post- Test	10.7 (0.94)	20.8 (2.89)	T=-10.47 P<0.001

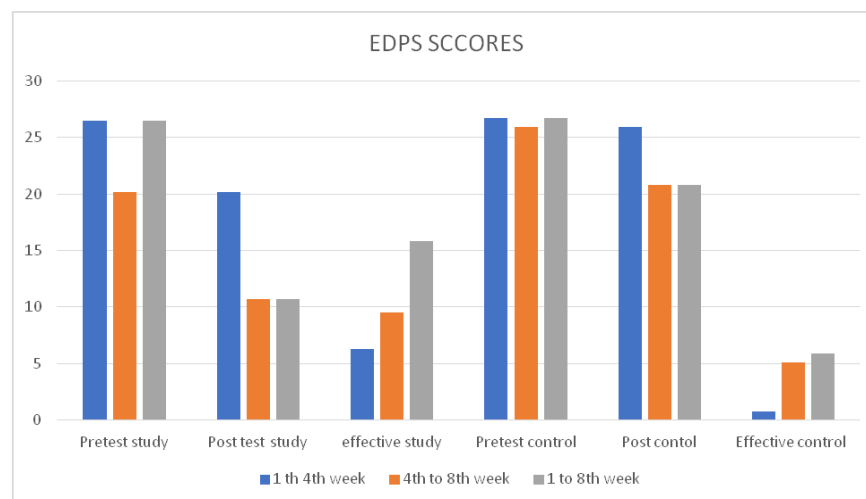


Fig. 1: EDPS scores

The Edinburgh postnatal depression questionnaire scores in the first week in yogic practices group was 6.3 ± 1.89 and in control group 0.8 ± 0.32 shows that the t-value for yogic practices is 10.55, p value $p < 0.001$. After the yogic practices given from fourth week to eighth week the effective mean was 9.5 ± 2.95 and for control group 5.1 ± 2.51 . The t-value for yogic practices group is 10.17 and p value $p < 0.001$ and for control group t value is 6.41 and p value $p < 0.001$ and the effective mean from first week to eighth week to the yogic practices group 15.8 ± 2.30 and for control group 5.9 ± 1.97 . The t value for yogic practices group is 21.72 and p value $p < 0.001$ and for control group t value is 9.47 and p value

$p < 0.001$. Hence, it is proved that yogic practices improved Edinburgh postnatal depression questionnaire scores among postpartum women.

Conclusion

The findings of the research demonstrated that the Postpartum women who participated in yogic practises had a significantly lower incidence of postpartum depression compared to the women who served as the study's control group. At a level of confidence of 0.05, the hypothesis was confirmed to be true. As a result, we may draw the conclusion that yogic practises are helpful to postpartum women in terms of maintaining a

healthy lifestyle and improving the overall quality of their lives.

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