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**ASSESS THE EFFECTIVENESS OF VIDEO-ASSISTED TEACHING  
PROGRAMME ON POSTNATAL EXERCISES AMONG POSTNATAL  
MOTHERS.**

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**ABSTRACT**

**Introduction:** Many postnatal mothers have limited knowledge about recommended postpartum exercises, which are crucial for recovery and health maintenance. This study investigates whether a video-assisted structured teaching programme can effectively enhance awareness and understanding of postnatal exercise practices.

**Aim:** To assess the effectiveness of a video-assisted structured teaching programme on knowledge of postnatal exercise among postnatal mothers in selected hospitals of Vadodara.

**Methodology:** A pre-experimental design with a single group using pre-test and post-test assessments was employed. Thirty postnatal mothers from selected hospitals in Vadodara were included via convenience sampling. Data collection tools included a socio-demographic sheet, a self-structured knowledge questionnaire, and a Likert scale to gauge attitude. A video-assisted structured teaching programme served as the educational intervention. Knowledge was evaluated before and after the intervention. Descriptive statistics summarized the demographic and knowledge data, while a paired t-test compared pre- and post-test scores; Chi-square tests examined associations between socio-demographic variables and knowledge levels.

**Result:** In the pre-test, 63.3% of mothers demonstrated poor knowledge, and 36.7% had average knowledge of postnatal exercise; none showed good knowledge. After the teaching programme, knowledge improved: 70% achieved a good level and the remaining 30% scored at an average level.

Mean knowledge scores rose from  $9.13 \pm 2.596$  (pre-test) to  $19.43 \pm 1.612$  (post-test), reflecting a mean increase of 10.30 points. This improvement was highly significant ( $t=16.10$ ,  $df=29$ ,  $p=0.001$ ). Among socio-demographic factors, only maternal age had a statistically significant association with knowledge level ( $p < 0.05$ ).

**Conclusion:** The video-assisted structured teaching programme was highly effective in significantly improving postnatal mothers' knowledge of postnatal exercise. Age appears to influence baseline knowledge, while other factors such as education, occupation, parity, and residence showed no significant relationship.

**Keywords:** Postnatal exercise, Video-assisted teaching, Knowledge, Postnatal mothers

## INTRODUCTION

The postnatal or postpartum period is the time right after childbirth, lasting about six weeks. Technically, *postpartum* refers to the mother, while *postnatal* refers to the baby.<sup>1</sup> This phase allows the mother's body to recover — the uterus shrinks back to its pre-pregnancy size, hormone levels adjust, and vaginal discharge called *lochia* is expelled.<sup>2</sup>

For the newborn, this is a crucial time of adapting to life outside the womb. Physically, the mother experiences numerous changes, including a soft, sometimes swollen abdomen, larger breasts, and possible swelling in the face, hands, or feet. Despite some immediate flattening of the belly, she may feel her abdominal muscles are weak.<sup>3,4</sup>

Moderate, gradual exercise in the postnatal period—ideally at least 150 minutes per week of moderate aerobic activity (like brisk walking) along with twice-weekly strength training—is safe and beneficial for most healthy mothers.<sup>5,6</sup> These activities help rebuild core and pelvic strength, increase energy, improve sleep, reduce stress, support weight management, and significantly lower the risk of postpartum depression—with even just ~80 minutes of light to moderate exercise per week associated with around a 45% reduction in depressive symptoms. Globally, there are over 200 million pregnancies annually, with about 85% of women experiencing at least one health issue after childbirth, and 31% continuing to face lasting problems beyond six months postpartum.<sup>7,8</sup> In countries like India where many women perform manual labor, structured physical fitness tends to be neglected.<sup>9</sup>

Moderate, gradual physical activity during both pregnancy and postpartum—generally aiming for 150 minutes per week of aerobic exercise plus twice-weekly muscle-strengthening—is safe and recommended for most women without medical contraindications.<sup>10,11</sup> It helps prevent excessive

weight gain, gestational diabetes, hypertension, cesarean delivery, and postpartum depression, while bolstering energy, mood, sleep, and cardiovascular and pelvic-floor strength.<sup>12</sup> Women with an existing exercise habit before pregnancy can often continue at higher intensities, but all should consult healthcare providers—especially after complicated deliveries—before resuming or intensifying exercise.<sup>13</sup>

## METHODOLOGY

The study used a pre-experimental pre-test post-test design to assess knowledge and attitude among postnatal mothers in selected hospitals of Vadodara. A total of 30 postnatal mothers were included using a convenient sampling technique. Data collection tools consisted of a socio-demographic data sheet, a self-structured questionnaire to assess knowledge, and a Likert scale to measure attitude. A Video Assisted Structured Teaching Programme was developed and implemented as the intervention. After obtaining ethical approval and informed consent, the pre-test was conducted, followed by the teaching programme, and then the post-test was administered. The collected data were analyzed using descriptive statistics (frequencies, percentages, mean, and standard deviation) and inferential statistics to interpret the effectiveness of the teaching programme and its impact on knowledge and attitude scores.

## RESULTS

**Table 1: Frequency and Percentage Distribution of Demographic Variables.**

(n=30)

Sr. No	Demographic Variable	Category	Frequency (f)	Percentage (%)
1.	Age in years	20-25 years	3	10
		26-30 years	25	83.3
		30-35 years	2	6.7
		36-40 years	0	0
2.	Occupation	Housewife	18	60
		Working women	12	40
3.	Income	1,000-5,000	3	10
		5,000-10,000	6	20
		10,000-15,000	17	56.7
		Above 15,000	4	13.3

4.	Education Status	Illiterate	2	6.7
		10 <sup>th</sup> pass	12	40
		12 <sup>th</sup> pass	14	46.6
		Graduate	2	6.7
5.	Diet Plan	Vegetarian	18	60
		Non vegetarian	3	10
		Mixed	9	30
6.	Exercise	Doing	6	20
		Not doing	24	80
7.	Family Type	Nuclear family	24	80
		Joint family	6	20
8.	Parity	1	9	30
		2	19	63.3
		3	2	6.7
		4	0	0
9.	Residence	Urban	16	53.3
		Rural	14	46.7
10.	Performing Yoga	Yes	0	0
		No	30	100

Table 1 present the 30 postnatal mothers studied in Vadodara were primarily aged 26–30 years (83.3%), predominantly housewives (60%), with the majority earning ₹10,000–15,000 monthly. Nearly half reported completing 12th grade (46.6%), most followed a vegetarian diet (60%), and only one-fifth engaged in any exercise; none practiced yoga. They largely lived in nuclear families (80%), were mixed parity (63% with two children), and more than half resided in urban areas (53.3%). These findings align with broader Indian data showing that postpartum morbidities are most common among low-income, less-educated women, and that postpartum depression affects 15–20% nationally. Physical activity and yoga participation in the postpartum period remain quite rare across developing regions such as India, even though both are known to improve physical and psychological recovery

**Figure 1: Distribution of pre-test and post-test level of knowledge regarding postnatal exercise**

**among postnatal mothers**

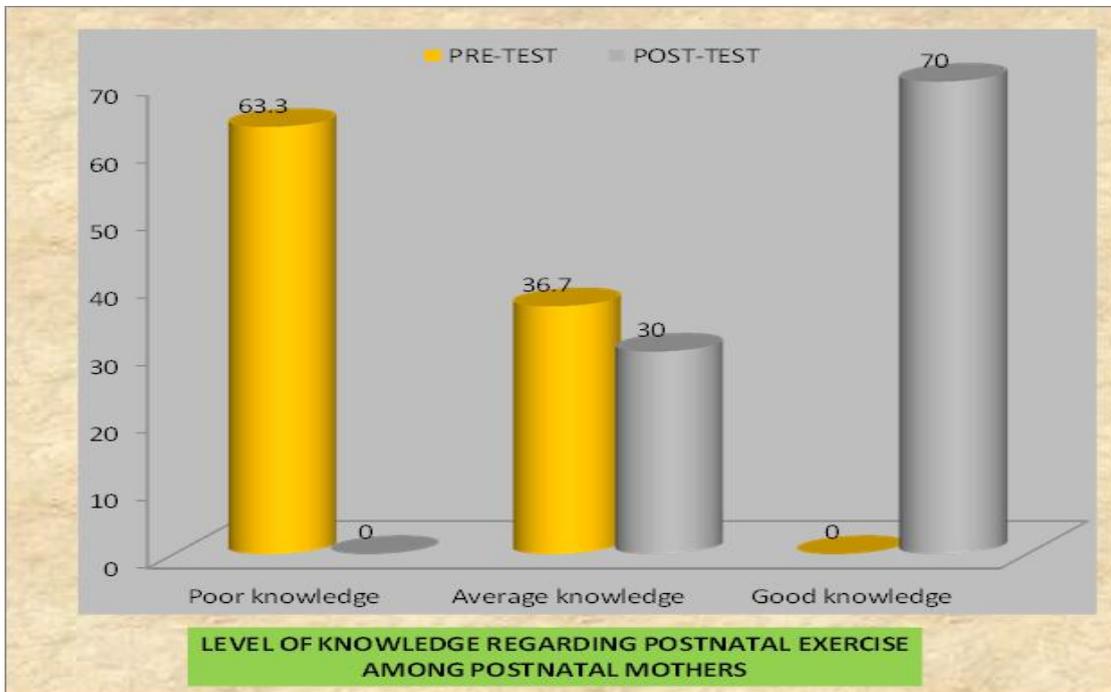


Figure 1 depicts the distribution of pre-test and post-test level of knowledge regarding postnatal exercise among postnatal mothers revealed that in pre-test majority 19(63.3%) had poor knowledge and 11(36.7%) had average knowledge where as in post-test majority 21(70%) had good knowledge and 9(30%) had average knowledge regarding postnatal exercise.

**Table 2: Effectiveness of video assisted teaching programme on knowledge regarding postnatal exercise among postnatal mothers**

(n=30)

S.NO	Level of Knowledge	Mean	SD	Mean D	t value		P value
1	Pre-test	9.13	2.596	10.30	16.10	29	0.001*
2	Post-test	19.43	1.612				

\*p<0.05 level of significance

Table 5 illustrates the effectiveness of video assisted teaching programme on knowledge regarding postnatal exercise among postnatal mothers. Mean pre-test knowledge score was 9.13±2.596 and mean post-test knowledge score was 19.43±1.612 with mean difference of 10.30. The difference in Pre-test and post-test knowledge score was tested by using paired t test with obtained t value (t=16.10, df=29, p=0,001) was statistically highly significant.

**Table 3: Association between pre-test level of knowledge regarding postnatal exercise among postnatal mothers with selected socio-demographic variables.**

(n=30)

Sr. No	Demographic Variable	Category	Pre-test knowledge		$\chi^2$ value	df	P value
			Poor	Average			
1.	Age in years	20-25 years	1	2	1.550	2	0.461 <sup>NS</sup>
		26-30 years	17	8			
		30-35 years	1	1			
		36-40 years	0	0			
2.	Occupation	Housewife	12	6	0.215	1	0.643 <sup>NS</sup>
		Working women	7	5			
3.	Income	1,000-5,000	1	2	6.801	3	0.079 <sup>NS</sup>
		5,000-10,000	3	3			
		10,000-15,000	14	3			
		Above 15,000	1	3			
4.	Education Status	Illiterate	2	0	5.547	3	0.136 <sup>NS</sup>
		10 <sup>th</sup> pass	9	3			
		12 <sup>th</sup> pass	8	6			
		Graduate	0	2			
5.	Diet Plan	Vegetarian	13	5	2.010	2	0.366 <sup>NS</sup>
		Non vegetarian	1	2			
		Mixed	5	4			
6.	Exercise	Doing	3	3	0.574	1	0.449 <sup>NS</sup>
		Not doing	16	8			
7.	Family Type	Nuclear family	14	10	1.292	1	0.256 <sup>NS</sup>
		Joint family	5	1			
8.	Parity	1	4	5	2.412	2	0.299 <sup>NS</sup>
		2	14	5			
		3	1	1			
		4	0	0			

9.	Residence	Urban	11	5	0.433	1	0.510 <sup>NS</sup>
		Rural	8	6			
10.	Performing Yoga	Yes	0	0	NA	NA	NA
		No	19	11			

Table 3 depicts the association between pre-test level of knowledge regarding postnatal exercise among postnatal mothers with selected socio-demographic variables which was tested by using the chi-square test. Results showed that age, occupation, income, education, diet, exercise, family type, parity, residence, and performing yoga were statistically non significant at  $p < 0.05$  level with pre-test level of knowledge regarding postnatal exercise among postnatal mothers.

**Table 4: Association between post-test level of knowledge regarding postnatal exercise among postnatal mothers with selected socio-demographic variables**

(n=30)

Sr. No	Demographic Variable	Category	Pre-test knowledge		$\chi^2$ value	df	P value
			Poor	Average			
1.	Age in years	20-25 years	3	0	8.571	2	<b>0.014*</b>
		26-30 years	5	20			
		30-35 years	1	1			
		36-40 years	0	0			
2.	Occupation	Housewife	6	12	0.238	1	0.626 <sup>NS</sup>
		Working women	3	9			
3.	Income	1,000-5,000	1	2	0.798	3	0.850 <sup>NS</sup>
		5,000-10,000	1	5			
		10,000-15,000	6	11			
		Above 15,000	1	3			
4.	Education Status	Illiterate	1	1	1.315	3	0.726 <sup>NS</sup>
		10 <sup>th</sup> pass	4	8			
		12 <sup>th</sup> pass	3	11			
		Graduate	1	1			

5.	Diet Plan	Vegetarian	5	13	2.223	2	0.329 <sup>NS</sup>
		Non vegetarian	0	3			
		Mixed	4	5			
6.	Exercise	Doing	1	5	0.635	1	0.426 <sup>NS</sup>
		Not doing	8	16			
7.	Family Type	Nuclear family	7	17	1.040	1	0.842 <sup>NS</sup>
		Joint family	2	4			
8.	Parity	1	5	4	4.380	2	0.112 <sup>NS</sup>
		2	4	15			
		3	0	2			
		4	0	0			
9.	Residence	Urban	5	11	1.026	1	0.873 <sup>NS</sup>
		Rural	4	10			
10.	Performing Yoga	Yes	0	0	NA	NA	NA
		No	9	21			

Table 4 depicts the association between post-test level of knowledge regarding postnatal exercise among postnatal mothers with selected socio-demographic variables, which was tested by using chi-square test. Results showed that the age of postnatal mothers was statistically significantly associated at a  $p < 0.05$  level with post-test level of knowledge regarding postnatal exercise. The other socio-demographic variables, such as occupation, income, education, diet, exercise, family type, parity, residence, and performing yoga, were statistically non-significant at the  $p < 0.05$  level with post-test level of knowledge regarding postnatal exercise among postnatal mothers.

## DISCUSSION

This study shows that out of 30 postnatal mothers, 19 (63.3%) had a poor level of knowledge about postnatal exercise in the pre-test, while 11 (36.7%) demonstrated only an average level of knowledge. This highlights the clear need to improve awareness about the importance of postnatal exercise for recovery and well-being. Supporting this, a journal published in June 2007 (Vol. 27, Issue 2) discussed how exercise during and after pregnancy has become increasingly supported by research over the past decade, with updated recommendations encouraging safe, moderate activity throughout pregnancy and the postpartum period<sup>14</sup>.

Following the video-assisted teaching programme, post-test results showed that knowledge levels

improved significantly 21 (70%) mothers achieved good knowledge, while 9 (30%) had an average level of knowledge regarding postnatal exercise. A related cross-sectional study from the School of Nursing and Midwifery, UK, found that while 77.9% of women received information about pelvic floor exercises, over half still reported not practicing them consistently—highlighting the persistent gap between awareness and practice<sup>15</sup>.

The mean Pre-test score was  $9.13 \pm 2.596$ , increasing to  $19.43 \pm 1.612$  in the post-test, with a mean difference of 10.30. The paired t-test showed this difference was highly significant ( $t = 16.10$ ,  $df = 29$ ,  $p = 0.001$ ), demonstrating that the programme successfully improved mothers' knowledge of postnatal exercise.

The Chi-square test showed a significant relationship only for age ( $p < 0.05$ ); other factors—occupation, income, education, diet, exercise, family type, parity, residence, and yoga practice—did not show a significant association with knowledge scores. This indicates that age may influence awareness about postnatal exercise, while other factors may not play a substantial role—similar to other studies where specific variables like program type or setting influenced knowledge levels more than general demographics.

## **CONCLUSION**

The study concluded that the video-assisted teaching programme significantly improved postnatal mothers' knowledge about postnatal exercise in selected hospitals of Vadodara. Before the intervention, 63.3% had poor knowledge and none had good knowledge; after the programme, 70% reached a good level and none remained at a poor level. The mean knowledge score rose from 9.13 to 19.43, and the difference was statistically significant ( $t = 16.10$ ,  $p = 0.001$ ), proving the programme was effective.

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## **CONFLICT OF INTEREST**

The authors hereby declare that there are no conflicts of interest associated with this research study.

## ETHICAL CONSIDERATION

Ethical approval for the study was granted by Pioneer Nursing College, Vadodara, Gujarat. Participants were fully informed about the study's objectives and accorded the opportunity to ask questions. Informed consent was obtained from all participants before the commencement of data collection.

## REFERENCES

1. Bhavisha, C., Vadivukkarasi, R. P., & Mehzbeen, N. (2020). A study to evaluate the effectiveness of video-assisted teaching regarding practice on selected postnatal exercises among lower segment caesarean section mothers in Shri Vinoba Bhawe Civil Hospital, Silvassa, Dadra & Nagar Haveli. *Journal of Nursing and Occupational Health*, 1(2), 36–42.
2. Central Book Agency. (2004). *D.C. Textbook of Obstetrics* (6th ed.). Calcutta, India.
3. Cramp, A. G., et al. (2003). Exercise in pregnancy and the postpartum period [Online]. Retrieved from <http://www.physong.com/news/80500905/html>
4. Alten, E., et al. (2001). Parturition and urinary incontinence in primiparous women. *American Journal of Obstetrics and Gynecology*.
5. American College of Obstetricians and Gynecologists. (2003). Exercise during pregnancy and the postpartum period. *Journal of Clinical Obstetricians and Gynecologists*.
6. Armstrong, K., & Edwards, H. (2003). The effects of exercise and social support on mothers reporting depressive symptoms: A pilot randomized controlled trial. *International Journal of Mental Health Nursing*.
7. Sharma, J. P. (2008). Physiotherapy in obstetrics: The relaxation exercise. *Indian Journal* [Guest Editorial].
8. Jacob, A. (2012). *A comprehensive textbook of midwifery and gynecological nursing* (3rd ed.). Jaypee Brothers Medical Publishers.
9. Elizabeth, M. (2013). *Midwifery for nursing* (2nd ed.). CBS Publishers & Distributors.
10. Jozwik, M., & Jozwik, M. (1998). The physiological basis of pelvic floor exercises in the treatment of stress urinary incontinence. *British Journal of Obstetrics and Gynaecology*, 105(10), 1046–1051.
11. Borg-Stein, J. P., et al. (2010). Exercise, sports participation, and musculoskeletal disorders of pregnancy and postpartum.
12. Committee on Obstetric Practice. (2012, March 1). Exercise during pregnancy and the postpartum period.



13. BLaerum, E., Kirkesola, G., et al. (2004). Pregnancy fitness [Online]. Retrieved from <http://www.facebook.comDTP>
14. Helen Vanderburg. (2007). Benefits of postnatal exercises. *Journal of Midwifery*, 23(June), 204–217.
15. Whitford, H. M., Alder, B., & Jones, M. (2007). A cross-sectional study of knowledge and practice of pelvic floor exercises during pregnancy and associated symptoms of stress urinary incontinence in North-East Scotland. *Midwifery*, 23(2), 204–217. <https://doi.org/10.1016/j.midw.2006.06.006>