

## Research Article

# EFFECTIVENESS OF PELVIC FLOOR EXERCISE IN PREVENTION OF URINARY INCONTINENCE AMONG PRIMIPARA POSTNATAL MOTHERS AT BELLAVI RURAL TUMKUR

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### ABSTRACT

Pelvic floor exercise also known as kegel exercise, practices in all over the world, it is effective and useful in many gynaecological conditions. It is a simple & effective exercise and it helps to modified the lifestyle and personality structure in both men and women and its cost effective. this is one of the oldest technique practiced according to the various pelvic dysfunctions and its highly recommended along with palliative treatment. **Objectives:** The objective of kegel exercise is explore its benefits and utilizing day-day life practice, prevention of urinary incontence in primipara women, modifies the lifestyle and change in personality structure. **Methodology:** This study conducted in bellavi, Tumkur with sample of 60 postnatal primipara mothers for one week and retested after a week. A pre experimental one group pre-test post test design and a qualitative research approach was carried out on 60 primipara mothers selected by convenient sampling technique to test the effectiveness of structured awareness programme, the data was collected by using structured questionnaire consists of 24 items **Result:** this study shows that there is a good improvement for the various conditions like urinary incontence, fast recovery after labour, various pelvic dysfunctions and gynaecological conditions. The study evaluates and found that demographic variables majority 43% of them were in the age group 31-35 years, majority 35% of them PUC and above education, majority 63% of them house wife, majority 81% of hindu region, majority 88% of primipara women. **Conclusion:** The data were analysed by applying descriptive and inferential statistics, The result of the study indicate that after intervention that was an improvement in the knowledge and they gain good knowledge about pelvic floor exercise. analysis data shows highly significance difference found between pre-test and post-test knowledge score at the level of ( $p < 0.05$ ) the hypothesis is proved and accepted.

**Keywords:** Effectiveness, Urinary incontinence, Pelvic floor exercise, knowledge, postnatal Primipara Mother.

### INTRODUCTION

Kegel exercises or pelvic floor muscle training strengthen the muscles that support the bladder, uterus (in women), and bowel. First developed by American gynecologist **Dr. Arnold Kegel** in the late 1940s as a nonsurgical way to help with urinary incontinence. The pelvic floor muscles are a group of muscles and connective tissues located at the base of the pelvis that form a "hammock-like" structure. By repeatedly contracting and relaxing these muscles, Kegel exercises can help improve pelvic support and control for both men and women.

experience various levels of incontinence; 3.3% of these women experience daily urine leaks or greater, and 8.5% of these women require the use of pads. Urine incontinence significantly affects women's quality of life. Urinary incontinence refers to any involuntary leakage of urine. it involves uncontrollable urine leakage during activities like coughing, sneezing, or physical exertion.

#### Key benefits of Kegel exercises

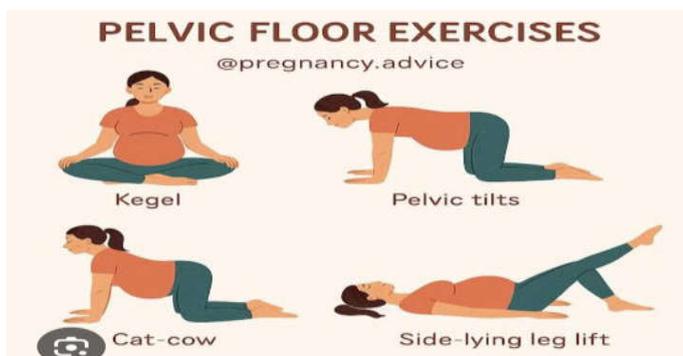
**Urinary and fecal incontinence control:** Kegels help prevent the involuntary leakage of urine, stool, or gas.

**Support for pelvic organs:** In women, strong pelvic floor muscles help prevent or manage pelvic organ prolapse.

**Postpartum recovery:** For pregnant women and those who have recently given birth, Kegels can help strengthen the pelvic floor muscles weakened by pregnancy and childbirth.

**Sexual function:** For both men and women, Kegels may increase sexual satisfaction and improve orgasms. In men, they may also help with erectile dysfunction and ejaculatory control.

**Prostate health:** In men, Kegels can help with symptoms related to benign prostatic hyperplasia (BPH) and prostatitis.

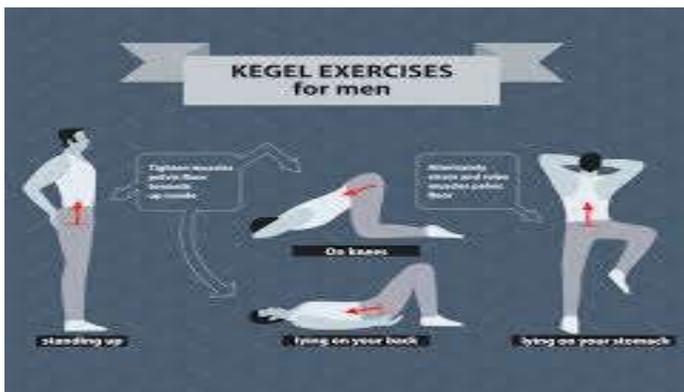


Urinary incontinence that occurs after childbirth is an increasingly prevalent problem for women as it affects about one-third of women. Within the first three months after giving birth, 34.3% of women

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## How to do a Kegel exercise



### STEPS OF PELVIC FLOOR EXERCISE

Squeeze your pelvic floor muscles for 3 to 5 seconds. Relax for 3 to 5 seconds. Repeat this 10 to 15 times for one set.

#### Avoid these common errors:

Breathe freely and naturally throughout the exercise. Avoid tightening your abdominal, buttock, or thigh muscles. Focus on squeezing only the pelvic floor muscles. Start with a few repetitions and build up gradually. Overtraining can lead to muscle fatigue.

### INDICATIONS

Athletes are almost 3 times more at risk of experiencing urinary incontinence (UI) than sedentary women, with prevalence rates varying from 10.9% in low-impact sports such as cycling to 80% when engaging in high-impact sports such as trampoline gymnastics. To treat UI, pelvic floor muscle (PFM) training (PFMT) is recommended as a first line of treatment.

Adults (aged  $\geq 18$  years) with chronic low back pain (with or without radiculopathy) were randomized to undergo either routine treatment or routine treatment with pelvic floor exercises for 24 weeks. Pain,

disability and trunk muscle function were assessed at baseline and after completion of treatment.

The scientific literature suggests that the female pelvic floor (PF) may be exempt from these benefits in many cases. In this regard, sports and high-intensity physical activities have been subject to debate as potential risk for developing PF disorders, particularly in intensely physically active women. High intra-abdominal pressure (IAP) during strenuous activities is hypothesized to stress the PF and subsequently contribute to PF dysfunction.

Women who experience urine leakage during pregnancy are more likely to develop postpartum UI. Other factors include pre-pregnancy changes, physiological changes related to pregnancy, and lack of guidance from healthcare professionals. Postpartum UI is often underestimated and perceived as a normal consequence of childbirth by both healthcare professionals and women. This perception leads to a lack of effective preventive interventions and low rates of help-seeking, diagnosis, or treatment among women. Management of urinary incontinence in women recommends pelvic floor muscle training for at least three months as the primary treatment for urinary stress incontinence.

The guideline states that pelvic floor exercises were found to be effective in the treatment of incontinence in female patients in more than 50% of cases. Pelvic floor exercises, also known as Kegel exercises, helps in the prevention and management of urinary incontinence, particularly during the postnatal period. The pelvic floor muscles play a vital role in supporting the bladder, uterus, and bowel, and strengthening these muscles can help prevent urinary leakage and other pelvic floor disorders.

**Benefits of Pelvic Floor Exercises.** Improved bladder control: Strengthening the pelvic floor muscles can help improve bladder control and reduce the risk of urinary incontinence. Enhanced pelvic floor muscle strength: Regular exercise can increase muscle strength, endurance, and coordination. Reduced risk of pelvic organ prolapse: Strengthening the pelvic floor muscles. Pelvic Floor Exercises: Information on pelvic floor exercises from the National Association for Continence (NAFC) Many women suffer from urinary incontinence (UI).

### Need for the study

This was a randomized control trial-among 97 Caucasian healthy nulliparas in uncomplicated pregnancies (age  $30 \pm 4$  years,  $21 \pm 5$  weeks of gestation; mean  $\pm$  SD). Women were assessed for pelvic floor muscle functions with surface electro myography (EMG) using vaginal probes and using the Incontinence Impact Questionnaire (IIQ). Only women able to contract pelvic floor muscles and with good quality of life based on IIQ were included for the study.

Seventy women in the experimental group took part in a supervised exercise program including high-low impact aerobics and pelvic floor muscle exercises three times a week. Twenty-seven controls did not receive any exercise intervention. After 6 weeks both groups were re-tested with EMG and IIQ. This was a randomized control trial among 97 Caucasian healthy nulliparas in uncomplicated pregnancies (age  $30 \pm 4$  years,  $21 \pm 5$  weeks of gestation; mean  $\pm$  SD). Women were assessed for pelvic floor muscle functions with surface electromyography (EMG) using vaginal probes and using the Incontinence Impact Questionnaire (IIQ).

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exercises three times a week. Twenty-seven controls did not receive any exercise intervention. After 6 weeks both groups were re-tested with EMG and IIQ. Post- and pre-exercise program changes in each group were analyzed using a repeated-measures ANOVA.

**OBJECTIVES**

kegel exercise is explore its benefits and utilizing day-day life practice, prevention of urinary incontinence in primipara women. modifies the lifestyle and change in personality structure.

**HYPOTHESIS**

1. **H1** - There will be a significant difference between pre-test and post-test knowledge scores of the primipara postnatal mothers regarding prevention of urinary incontinence.
2. **H2** - There will be significant association between the pre-test knowledge of the primipara postnatal mother regarding prevention of urinary incontinence.

**Conditions and benefits**

1. Antenatal women strengthens pelvic floor muscles ,supports uterus ,bladder, bowel. reduce urinary incontinence, bowel control, prevent pelvic organ prolapse.
2. Postnatal women early postpartum recovery, strengthens pelvic floor muscles, reduce urinary incontinence, Decrease pelvic pain, bladder and bowel control.
3. Men strengthens pelvic floor muscles, reduce urinary incontinence, bladder and bowel control, enhancing sexual functioning.
4. strengthens pelvic floor muscles, prevent urinary and fecal incontinence, all eviate lower back pain, improves quality of life.

**METHODOLOGY**

The Pelvic floor exercise or kegel exercise applied for 60 postnatal mothers and kegel exercise procedure applied for period of week for the postnatal mothers after the intervention of found that kegel exercise shows that tremendous improvements in many postnatal issues and used convineant samples techniques and intervnted study conducted on postnatal mothers one week in bellavi, Tumkur. The research design of the study was Simple random technique. The population was primipara postnatal mothers. A qualitative research approach will be used. The sample consists of 60 primipara postnatal mothers at Tumkur. convenient sample technique was used for the present study. the pretest was conducted using structured questionnaire given to the postnatal women's. The post test was conducted after 7 days of intervention by using same questionnaire. The data obtained was analyzed by using descriptive and inferential statistics.

**RESULT**

**Table - 1 Pelvic Floor Exercise Primipara Postnatal Mothers**

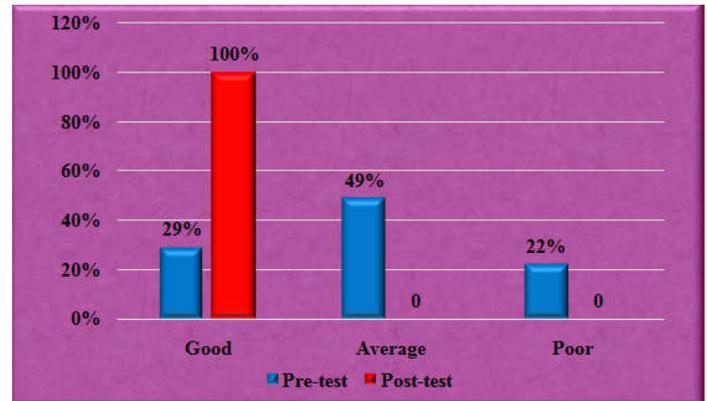
n=60

Level of knowledge	Pre-Test		Post-Test	
	Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
Good (above 25.79)	17	29	60	100
Average (25.79-21.49)	30	49	00	00

Poor (below 21.49)	13	22	00	00
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Good (above 25.79), Average (25.7-21.79), Poor (21.49)

Table – 1 reveals that, distribution of level of knowledge among primipara postnatal mother regarding pelvic floor exercise during pre-test and post-test. Most of them in the pre-test 30 (49%) had average knowledge, 17 (29%) had good knowledge and 13 (22%) had poor knowledge, majority of the subjects 60 (100%) regarding pelvic floor exercise.



PRE AND POST KNOWLEDGE OF PELVIC FLOOR EXERCISES

**DISCUSSION**

This procedure is universally accepted and followed particularly in prevntion of urinary incontinence in postnatal mothers, gynaecological disease conditions, post operative recovery, in athletics, fast recovery of postnatal mothers and also in various conditions also proved. This study helps in improving the knowledge among primipara postnatal mother regarding pelvic floor exercise during pre-test and post-test. Most of them in the pre-test 30 (49%) had average knowledge, 17 (29%) had good knowledge and 13 (22%) had poor knowledge, majority of the subjects 60 (100%) regarding pelvic floor exercise. This study conducted in bellavi, Tumkur with sample of 60 postnatal primipara mothers for one week and retested after a week .

A pre experimental one group pre-test post test design and a qualitative research approach was carried out on 60 primipara mothers selected by convenient sampling technique to test the effectiveness of structured awareness programme, the data was collected by using structured questionnaire consists of 24 items. this study shows that there is a good improvement for the various conditions like urinary incontinence, fast recovery after labour, various pelvic dysfunctions and gynaecological conditions.

The study evaluates and found that demographic variables majority 43% of them were in the age group 31-35 years, majority 35% of them PUC and above education, majority 63% of them house wife, majority 81% of Hindu region, majority 88% of primipara women. The data were analysed by applying descriptive and inferential statistics, The result of the study indicate that after intervention that was an improvement in the knowledge and they gain good knowledge about pelvic floor exercise. analysis data shows highly significance difference found between pre-test and post-test knowledge score at the level of (p<0.05) the hypothesis is proved and accepted.

## CONCLUSION

The kegal exercise tested and proved that is very effective particularly antenatal, postnatal, elderly people, and other gynaecological problems such as PCOD, endometrial disease, condition.

The kegal exercise is simple and easy to practice it takes almost 5min. Kegel exercise is very important for following condition, urinary incontinence, endometrial surgeries, back pain, athletes, pelvic muscle tightens, prostate gland enlargement, sexual dysfunction.

## RECOMMENDATION

This study should be replicated with large sample size particularly in rural area. Regular Kegel exercise is one of the best palliative care for urinary incontinence Improves patient quality life and restoring balder & bowel control.

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## REFERENCES

1. JOURNAL OF HEALTHCARE SCIENCES Volume 4 Issue 1 2024, Article ID: JOHS2024000821 <http://dx.doi.org/10.52533/JOHS.2024.40111>
2. Elbiss, Hassan M. MD, MRCOG, FRCOG <https://orcid.org/0000-0002-2908-6704> [https://journals.lww.com/mdjournal/fulltext/2023/03030/postpartum\\_urinary\\_incontinence\\_of\\_nulliparous.29.aspx](https://journals.lww.com/mdjournal/fulltext/2023/03030/postpartum_urinary_incontinence_of_nulliparous.29.aspx)
3. <https://doi.org/10.1016/j.maturitas.2010.08.004>
4. SØREN BROSTRØM, GUNNAR LOSE First published: 31 December 2010 <https://doi.org/10.1080/00016340801938806>
5. <https://www.contemporaryobgyn.net/view/survey-highlights-postpartum-incontinence-struggles-and-lack-of-medical-support>
6. Elbiss, Hassan M. MD, MRCOG, FRCOG <https://orcid.org/0000-0002-2908-6704>
7. References- - Dumoulin, C., & Hay-Smith, J. (2010). Pelvic floor muscle training versus no treatment, or inactive control treatments, for urinary incontinence in women. *Cochrane Database of Systematic Reviews*, 2010(1), CD005654.
8. *Healthcare* 2022, 10(6), 1035; <https://doi.org/10.3390/healthcare10061035> Submission received: 16 April 2022 / Revised: 23 May 2022 / Accepted: 31 May 2022 / Published: 2 June 2022

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