



A study to evaluate the effectiveness of kegel exercise in reducing urinary incontinence among senior citizens in a selected hospital at Erode

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Abstract

Background: Urinary incontinence is a common health problem among senior citizens that affects quality of life. Kegel exercises are simple pelvic floor muscle strengthening exercises that may help reduce urinary incontinence.

Objectives: 1. To assess the pre-test and post-test level of urinary incontinence among senior citizens. 2. To evaluate the effectiveness of Kegel exercise in reducing urinary incontinence. 3. To determine the association between pre-test urinary incontinence levels and selected demographic variables.

Methodology: A quantitative pre-experimental one-group pre-test and post-test design was adopted among 50 senior citizens selected through non-probability convenience sampling. Urinary incontinence was assessed using a standardized urinary incontinence scale before and after Kegel exercise intervention.

Results: The study findings revealed a significant reduction in urinary incontinence after Kegel exercise intervention ($t = 6.7$, $p < 0.05$).

Conclusion: Kegel exercise is an effective, simple, and non-invasive intervention for reducing urinary incontinence among senior citizens.

Keywords: Kegel exercise, urinary incontinence, senior citizens, pelvic floor muscle exercise, elderly

Introduction

Urinary incontinence is defined as the involuntary leakage of urine and is a common condition among older adults. It significantly affects physical, psychological, and social well-being. The prevalence of urinary incontinence increases with age and is more common among women than men. Pelvic floor muscle weakness is one of the major contributing factors. Kegel exercises strengthen the pelvic floor muscles and help improve bladder control, thereby reducing urinary incontinence and enhancing quality of life.

Need for the Study

Urinary incontinence affects millions of elderly individuals worldwide and is often underreported and undertreated. Studies indicate that urinary incontinence negatively impacts quality of life and increases psychological distress. Since Kegel exercises are cost-effective, safe, and easy to perform, evaluating their effectiveness among senior citizens is essential.

Statement of the Problem

A study to evaluate the effectiveness of Kegel exercise in reducing urinary incontinence among senior citizens in a selected hospital at Erode.

Objectives

1. To assess the pre-test and post-test level of urinary incontinence among senior citizens.
2. To assess the effectiveness of Kegel exercise in reducing urinary incontinence among senior citizens.
3. To determine the association between pre-test urinary incontinence levels and selected demographic variables.

Hypotheses

H1: There will be a significant difference between pre-test and post-test levels of urinary incontinence among senior citizens.

H2: There will be a significant association between pre-test urinary incontinence levels and selected demographic variables.

Methodology

Research Approach

Quantitative Research Approach.

Research Design

Pre-experimental one-group pre-test and post-test design.

Setting

Senthil Multi Speciality Hospital, Erode.

Population

Senior citizens aged 60–75 years.

Sample Size

50 senior citizens.

Sampling Technique

Non-probability convenience sampling technique.

Intervention

Kegel exercise training was demonstrated and participants practiced the exercise regularly for 21 days.

Data Collection Tool

Urinary Incontinence Scale.

Statistical Analysis

Descriptive and inferential statistics including frequency, percentage, mean, standard deviation, paired t-test, and chi-square test. [4:48 am, 25/6/2026] Rohini: Based on the demographic data in your study (n = 50), the age distribution graph can be presented as follows. The data are: 60–65 years = 14, 66–70 years = 28, and 71–75 years = 8 participants.

Statistics used in this study

- **Frequency and Percentage:** Demographic variables.
- **Mean and Standard Deviation:** Pre-test and Post-test urinary incontinence scores.
- **Paired t-test:** To assess effectiveness of Kegel exercise.
- **Chi-square test:** To find association between urinary incontinence and demographic variables

Part I

Percentage wise distribution of demographic variables Among among senior citizens

Table 1: Frequency and Percentage wise distribution of Demographic Variable n=50

S. No	Demographic variables	Frequency (f)	Percentage (%)
1.	Age in years		
	a)60 -65 years	14	28
	b)66 - 70 years	28	56
	c)66 - 70 years	8	16
2.	Gender		
	a) Male	18	36
	b) Female	32	64
3.	Occupation		
	a) Government	7	14
	b) Private	14	28
	c)Cooli	11	22
	d)Business	5	10
	e) Home maker	13	26
4.	Previous diagnosis of Urinary Incontinence		
	a) Yes	13	26
	b) No	37	74
5.	History of urinary tract Infection		
	a) Yes	34	68
	b) No	16	32
6.	BodyMassindex		
	a) Underweight	7	14
	b) Normal	8	16
	c) Overweight	16	32
	d) Obese	19	38
7.	Previous history of pelvic surgery		
	a) Yes	31	62
	b) No	19	38

The above table shows that among 50 samples according to the age in years 14(28%) were in the age group of 60-65 years, 28 (56%) were in the age group of 66 - 70 years, 8 (16%) were in the age group of 71 – 75 years. Regarding gender

18 (36%) were belong to Male, 32(64%) belong to Female. Regarding the Occupation 7(14%) were in Government, 14 (28%) were in private, 11(22%) were in Cooli, 5(10%) were in Business and 13 (26%) were in Home maker. Considering the previous diagnosis of urinary incontinence 13(26 %) had yes and 37(74%).

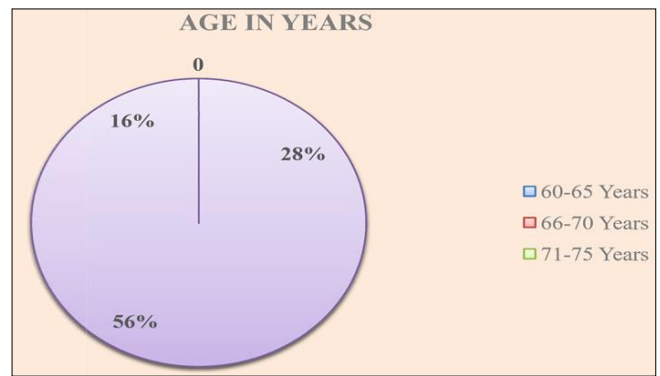


Fig 1: Frequency and percentage wise distribution among senior citizen According to the age in years

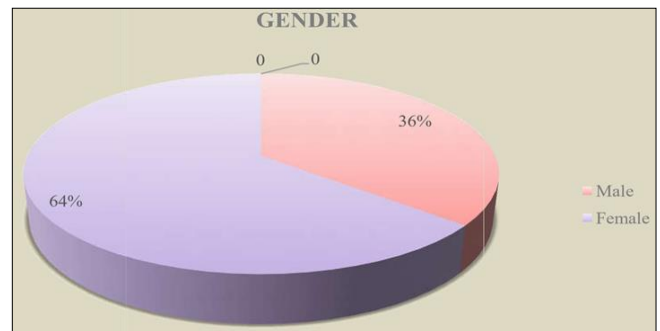


Fig 2: Frequency and percentage wise distribution Among senior citizen according to the gender

Results

The study demonstrated that Kegel exercise significantly reduced urinary incontinence among senior citizens. The paired t-test value ($t = 6.7$, $p < 0.05$) indicated that the intervention was statistically effective.

Discussion

The findings revealed that Kegel exercises effectively strengthened pelvic floor muscles and reduced urinary incontinence among senior citizens. The results are consistent with previous studies that reported significant improvements in urinary continence following pelvic floor muscle training.

Conclusion

The study concluded that Kegel exercise is an effective nursing intervention for reducing urinary incontinence among senior citizens. Regular practice of Kegel exercises can improve bladder control and enhance quality of life.

Recommendations

1. Similar studies can be conducted with a larger sample size.
2. Comparative studies can be conducted using control groups.
3. Long-term follow-up studies may be undertaken.
4. Educational programs on Kegel exercises can be organized for elderly populations.

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