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Research Article

# "A STUDY TO ASSES THE EFFECTIVENESS OF KNACK TECHNIQUE TO IMPROVE THE QUALITY OF LIFE WITH URINARY INCONTINENCE AMONG MENOPAUSAL WOMEN IN SELECTED RURAL AREAS, KANPUR, U.P"

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**ABSTRACT :-**

Urinary incontinence is a condition associate with renal system characterized by weakening the muscles and urinary leakage. The study evaluates the effectiveness of Knack technique to improve the quality of life with urinary incontinence among menopausal women. This study aims to assess the effectiveness of knack technique to improve the quality of life with urinary incontinence among menopausal women in selected rural areas, Kanpur U.P. The study involves quasi-experimental one group pre-test and post-test design to measure QOL- levels among participants those were menopausal women before and after the demonstration and intervention. In this study, the purposive sampling technique was used to select menopausal women with urinary incontinence in selected rural areas. Data were collected using I-QOL of urinary incontinence quality of life questionnaires. Following this a comprehensive teaching program covering Introduction, definition, incidence, rate, types, aetiology, impact, prevention, importance and performing knack technique to improve QOL with urinary incontinence were implemented.

The result demonstrated a significant decrease in urinary incontinence after the intervention ($P<0.05$) indicating that the knack technique was effective to improve the QOL with urinary incontinence .This highlights the important of knack techniques to improving QOL outcomes of menopausal women at risk of urinary incontinence .The study concludes that knack technique are crucial for improving QOL with the necessary knowledge to improve the QOL and prevent urinary incontinence effectively. There by potentially improving the QOL outcomes and reducing the level of urinary incontinence among menopausal women.

**Key words:** ***Assess, Effectiveness, QOL, I-QOL, urinary incontinence, menopausal women, rural-areas.***

## INTRODUCTION

***"Menopause Is Not A 'Pause' At All; It's A 'Play.' It's Your Time To Shine."*** **-**

Ellendolgen

Menopause is a natural biological process that marks the end of a woman's reproductive life, characterized by a permanent cessation of menstruation due

to declining estrogen levels. This transition, typically occurring between ages 45 and 55, can lead to various physical, emotional, and psychological symptoms that impact a woman's quality of life[1]

Menopause can bring significant changes to a woman's body, and one common issue that arises is urinary incontinence. Urinary incontinence is a common issue affecting numerous menopausal women, impacting their quality of life in significant ways. There are several types of urinary incontinence, each with distinct characteristics.

Urinary incontinence can significantly impact the quality of life in menopausal women, affecting their physical, emotional, and social well-being. The physical symptoms of urinary incontinence, such as uncontrolled urine leakage, can cause discomfort, skin irritation, and infections. Globally, over 200 million people live with urinary incontinence. In India, studies suggest that the prevalence of urinary incontinence aamong postmenopausal women can be as high as 63.1%. Another study conducted in North India found that the prevalence of urinary incontinence was higher in both urban and rural areas among menopausal women's.

There are several exercises that can help to treat urinary incontinence in menopausal women. Pelvic floor exercises, also known as Kegels (knack technique), are particularly effective in strengthening the pelvic floor muscles and improving bladder control. According to research, these exercises can be an effective way to improve quality of life with urinary incontinence among menopausal women.[5]

The Knack technique is a pelvic floor muscle training method that involves a specific way of contracting and releasing the pelvic floor muscles to improve bladder control and reduce urinary incontinence.

## NEED OF THE STUDY

Urinary incontinence (UI) is a prevalent condition among menopausal women due to hormonal changes, pelvic floor muscle weakening, and other age-related factors. Studies have shown that the incidence of UI significantly increases during menopause, leading to a considerable impact on a woman's quality of life. In rural areas like Kanpur, Uttar Pradesh, many women may face challenges in accessing medical interventions for UI due to limited healthcare resources, cultural stigma, and a lack of awareness about the condition. As a result, they often endure the condition without seeking help, which can lead to emotional distress, social isolation, and a reduction in daily functioning.[19]

The effectiveness of the Knack Technique, which involves voluntary pelvic floor muscle contraction, has been demonstrated in urban settings as a simple and non-invasive method to manage UI. This technique has shown potential in improving symptoms of UI and enhancing the quality of life of women who experience this condition. However, there is limited research on the application of the Knack Technique specifically for menopausal women in rural areas, where access to healthcare professionals and advanced treatments may be minimal. Given that rural populations often face greater barriers in seeking medical care, the Knack Technique offers an accessible,

cost-effective solution that can be practiced at home.[20]

Moreover, this technique can empower women to manage their symptoms independently, contributing to improved physical, emotional, and social well-being. Raising awareness about UI and the Knack Technique could also reduce stigma and encourage early intervention, improving the overall quality of life for menopausal women in rural settings. Research in this area would provide valuable insights into how such interventions can be integrated into rural healthcare strategies, filling a significant gap in current literature and potentially improving the lives of many women in underserved areas like Kanpur.[21]

Urinary incontinence (UI) is a common and distressing condition among menopausal women, with its incidence increasing due to hormonal changes, weakening of the pelvic floor muscles, and other age-related factors. While UI significantly impacts quality of life, it is often underreported and untreated, especially in rural areas like Kanpur, Uttar Pradesh. Many women in these regions face challenges in accessing healthcare due to limited resources, financial constraints, and cultural stigma surrounding the condition. As a result, many women endure UI without seeking medical help, which can lead to emotional distress, social isolation, and a decrease in daily functioning. Studies have shown that UI affects a significant proportion of women, leading to physical and psychological consequences that reduce their overall quality of life (Nygaard et al., 2008; Subak et al., 2001).[22]

In rural areas, where healthcare infrastructure is often lacking and specialized care is difficult to access, the Knack Technique offers a simple and non-invasive solution to manage UI. The Knack Technique involves voluntary contraction of the pelvic floor muscles and has been shown to be effective in urban settings as a treatment for UI. However, there is limited research on the application of this technique for rural populations, where healthcare access is more constrained. The technique offers a promising, cost-effective method that can be learned and practiced at home, making it a viable option for women in rural areas who may not have access to healthcare professionals. By enabling women to manage their symptoms independently, the Knack Technique has the potential to improve both the physical and emotional well-being of those affected by UI (Sapsford et al., 2016).[23]

Awareness of UI and self-management techniques such as the Knack Technique is crucial in rural areas, where stigma and lack of knowledge may prevent women from seeking help. Education about the technique could reduce stigma, encourage early intervention, and empower women to address their symptoms effectively. Research in this area is essential to assess the feasibility and effectiveness of this approach for rural populations, where there is a significant gap in access to advanced treatments. Such research could lead to the development of accessible and affordable healthcare interventions, improving quality of life for menopausal women in underserved areas. Furthermore, community-based education and training programs could help disseminate

information about the Knack Technique, fostering a supportive environment for women to seek care and reduce the burden of untreated UI .By exploring the potential of the Knack Technique in rural settings, this research could provide valuable insights into how it can be integrated into existing healthcare strategies, contributing to better health outcomes for women in resource-limited regions. The findings could also inform public health policies aimed at improving access to care and reducing health disparities between urban and rural areas, ensuring that women everywhere have the opportunity to manage their health and well-being effectively.[24]

**PROBLEME STATEMENT :-**

**A study to asses the effectiveness of knack technique to improve the quality of life with urinary incontinence among menopausal women in selected rural areas Kanpur up.**

**OBJECTIVE OF THE STUDY:-**

- To assess the pre-test on severity of urinary incontinence before the intervention of knack technique among menopausal women in selected rural areas , Kanpur U.P.
- To assess the effectiveness of knack technique to improve the quality of life with urinary incontinence among menopausal women in selected rural areas, Kanpur, U.P.
- To find out the association between the pre-test level score regarding knack technique with their selected socio - demographic variables.

**Hypothesis**

- $H_{01}$- There was no significant difference between pretest and post test score to improve the quality of life with urinary incontinence among menopausal women in selected rural areas , Kanpur, UP.
- $H_{02}$- There was no significant association between pretest score to improve the quality of life with urinary incontinence among menopausal women with their selected socio-demographic variables.
- $H_1$- There was significant difference between pretest and post test score to improve the quality of life with urinary incontinence among menopausal women in selected rural areas , Kanpur, UP.
- $H_2$:There was significant association between pretest score to improve the quality of life with urinary incontinence among menopausal women with their selected socio-demographic variables.

**VARIABLES:-**

1. Independent Variables: Knack technique interventions.
2. Dependent Variables: Quality of life with urinary incontinence among menopausal women.

**METHODOLOGY – MATERIALS AND METHODES**

**SOURCE OF DATA –** The data was collected among menopausal women at selected rural area of Kanpur Up.

INCLUSION CRITETIA-

- Menopausal women aged above 45 years.

- Women residing in selected rural areas of Kanpur, U.P.
- Women experiencing urinary incontinence.

**EXCLUSION CRITERIA-**

- Women with a history of pelvic surgery or radiation therapy.
- Women with cognitive or physical limitation.
- Not present at the time of data collection.

**RESEARCH DESION-**

Research design was refer to the framework of research methods and techniques chosen for the study. In the present study, the researcher adopt a quantitave evaluative study one-group pretest, post-test only research design without a control group.

RESEARCH APPROACH-

An evaluative approach was used in study.

**POPULATION-**

Menopausal women age 40-65 years and above selected in rural areas.

Target population –

The target population for the present study menopausal women in Kanpur up.

**SEMPLE TECHNIQUE-**

the purposive sampling technique was used to select menopausal women with urinary incontinence in selected areas Bhawanipur and Ramnagar, Kanpur,UP.

**TOOL OF RESEARCH** –

The tool used to measure the concept of interest in a research project used by a researcher to collect data and it is important that the tool should be efficient and reliable.

The tools were prepared with respect to assess the effectiveness of knack technique to improve the quality of life with urinary incontinence among menopausal women in selected rural areas Bhawanipur and Ramnagar Kanpur, UP. It was based on research reports, personal details, peer group discussion and expert guidance. The tools were initially prepared in English and Hindi by the language expert.

RESULT-

**SECTION–A**

**FREQUENCY AND PERCENTAGE WISE DISTRIBUTION OF MENOPAUSAL WOMEN ACCORDING TO THEIR DEMOGRAPHIC VARIABLES.**

1 majority of menopausal women28(47%) were aged between 46-50years, 13(22%) were aged between 51-55 years, 12(20%) were

aged between 40- 45years and 7(11%) were aged between 56 above.

2. majority 31(52%) were illiterate, 19(32%) were primary educated, 7(11%) and 3(5%) were higher education.

3. majority 51(85%) were hindu,9(5%) were muslim,0(0%) were Christian and 0(0%) were others.

4. majority25(42%) were66-70kg,19(30%) were 70 or above, 14(24%) were 56-65 kg and 02(04%) were 45-55kg.

5. majority 36(60%) were daily wage worker , 24(40%) house wife , government job 0(0%)and were private job 0(0%) .

6. majority31(52%) were single parent family ,16(27%) were blended family,7(11%) were joint family and 6(10%) were nuclear family.

7. majority25(42%) were moderately active ,16(27%) were sedentary active,15(25%) were others and 4(6%) higher active.

8. majority 46(76%) having no cough, 14 (24%) having cough.

9. majority having 5 or more number of children 27(45%) were having 3-4 number of children ,23(39%) were having 1-2 number of children,10(16%) and were having 0 (0%) number of children .

10.majority 1-5 year duration of menopause were having 31(52%), 6-10 years
duration of menopause were having 22(37%) , more than 10 years duration of menopause were having 5(9%) , less than 1 year duration of menopause were having 2(2%)

11. majority 46(76%) were vaginal delivery and 14(24%) and were cesarean section.

12. majority 42(72%) were having diabetes mellitus,15(25%) were having UTI,3 (3%) and 0 (0%) were having Parkinson disease.

13. majority 60(100%) were not performing exercise and 0(0%) were performing exercise.

SECTION B:-

Distribution of menopausal women according to their pre-test and post-test level of urinary incontinence.

| S. No. | Level of QOL with Urinary Incontinence among menopausal | Pre-Test | Post-Test |
|---|---|---|---|

| | **women** | | | | |
|---|---|---|---|---|---|
| | | **F** | **%** | **F** | **%** |
| 1. | Very poor (1-22) | 06 | 10% | 00 | 00% |
| 2. | Poor (23-43) | 31 | 52% | 05 | 08% |
| 3. | Average (44-64) | 19 | 32% | 48 | 80% |
| 4. | Good (65-85) | 04 | 6% | 05 | 08% |
| 5. | Excellent | 00 | 00% | 02 | 04% |
| **Total** | | **60** | **100%** | **60** | **100%** |

SECTION C:-

Frequency, mean, mean difference, standard deviation, paired 't' test of standardized I-QOL of urinary incontinence quality of life questionnaire.

| **S.No.** | **Level of QOL with Urinary incontinence.** | **Mean** | **Mean Difference** | **SD** | **Paired 't' Test** | **Table Value** |
|---|---|---|---|---|---|---|
| 1. | Pre-Test | 43.55 | | 10.978 | | 1.676 |
| | | | 2.56 | | 7.65 | the 0.05 level of significance |
| 2. | Post-Test | 46 | | 11.380 | | |

SECTION D:-

**association of level of QOL with urinary incontinence among menopausal women with their selected demographic variables.**

| S. No. | Demographic Variables | Very Good | Poor | Average | Good | Excellent | Chi square $x^2$, df 't' | Significant Non - significant |
|---|---|---|---|---|---|---|---|---|
| **1. Age in Years** | | | | | | | | |
| | 40-45 Years | 01 | 06 | 04 | 01 | 00 | $(x^2) = 89.46$ | S |
| | 46-50 Years | 02 | 15 | 09 | 02 | 00 | Df=12 | |
| | 51-55 Years | 02 | 05 | 05 | 01 | 00 | 't'=21.03 | |
| | 56 Above | 01 | 05 | 01 | 00 | 00 | | |
| **2. Education** | | | | | | | | |
| | Illiterate | 02 | 17 | 11 | 01 | 00 | $(x^2) = 103.78$ | S |
| | Primary Education | 02 | 09 | 06 | 02 | 00 | Df=12 | |
| | Secondary Education | 02 | 03 | 01 | 01 | 00 | 't'=21.03 | |
| | Higher Education | 00 | 02 | 01 | 00 | 00 | | |
| **3. Religion** | | | | | | | | |
| | Hindu | 04 | 29 | 15 | 03 | 00 | $(x^2) = 83.86$ | S |
| | Muslim | 02 | 02 | 04 | 01 | 00 | Df=12 | |
| | Christian | 00 | 00 | 00 | 00 | 00 | 't'=21.03 | |
| | Other | 00 | 00 | 00 | 00 | 00 | | |
| **4. Weight** | | | | | | | | |
| | 45-55 kg | 00 | 01 | 01 | 00 | 00 | $(x^2) = 76.937$ | S |
| | 56-65 kg | 02 | 17 | 04 | 01 | 00 | Df=12 | |
| | 66-70 kg | 02 | 15 | 06 | 02 | 00 | 't'=21.03 | |
| | 70 or4 above | 02 | 08 | 08 | 01 | 00 | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **5. Occupation** | | | | | | | |
| Government Job | 00 | 00 | 00 | 00 | 00 | $(x^2) = 95.2$ | S |
| Private Job | 00 | 00 | 00 | 00 | 00 | Df=12 | |
| Housewife | 03 | 14 | 06 | 01 | 00 | 't'=21.03 | |
| Daily wage worker | 03 | 17 | 13 | 03 | 00 | | |
| **6. Type of Family** | | | | | | | |
| Nuclear Family | 00 | 03 | 03 | 00 | 00 | $(x^2) = 77.68$ | S |
| Single-parent family | 03 | 15 | 11 | 02 | 00 | Df=12 | |
| Joint Family | 01 | 03 | 02 | 01 | 00 | 't'=21.03 | |
| Blended Family | 02 | 10 | 03 | 01 | 00 | | |
| **7. Life Style** | | | | | | | |
| Sedentary | 02 | 10 | 03 | 01 | 00 | $(x^2) = 63.963$ | S |
| Moderately active | 02 | 15 | 06 | 02 | 00 | Df=12 | |
| Highly active | 01 | 02 | 01 | 00 | 00 | 't'=21.03 | |
| Others | 01 | 04 | 09 | 01 | 00 | | |
| **8. Coughing** | | | | | | | |
| Yes | 02 | 09 | 02 | 01 | 00 | $(x^2) = 60$ | S |
| No | 04 | 22 | 17 | 03 | 00 | Df=12 | |
| | | | | | | 't'=21.03 | |
| **9. Parity** | | | | | | | |
| 0 | 00 | 00 | 00 | 00 | 00 | $(x^2) = 78.812$ | S |
| 1-2 | 02 | 04 | 03 | 01 | 00 | Df=12 | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 3-4 | 02 | 19 | 00 | 02 | 00 | 't'=21.03 | |
| | 5 or more | 02 | 08 | 16 | 01 | 00 | | |
| **10. Duration of Memo pause** | | | | | | | | |
| sssss | Less than 1 year | 00 | 01 | 00 | 00 | 00 | $(x^2) = 79.93$ | S |
| | 1-5 years | 03 | 16 | 11 | 02 | 22 | Df=12 | |
| | 6-10 years | 02 | 12 | 07 | 01 | 00 | 't'=21.03 | |
| | More than 10 years | 01 | 02 | 01 | 01 | 00 | | |
| **11. Mode of Delivery** | | | | | | | | |
| | Vaginal Delivery | 04 | 22 | 17 | 03 | 00 | $(x^2) = 83.995$ | S |
| | Cesarean Section | 02 | 09 | 02 | 01 | 00 | Df=12 | |
| | | | | | | | 't'=9.49 | |
| **12. Do you have my health issues** | | | | | | | | |
| | Diabetes Mellitus | 02 | 09 | 03 | 01 | 00 | $(x^2) = 68.68$ | S |
| | Parkinson's Disease | 00 | 00 | 00 | 00 | 00 | Df=12 | |
| | UTI | 00 | 02 | 01 | 00 | 00 | 't'=21.03 | |
| | Others | 04 | 20 | 15 | 03 | 00 | | |
| **13. Do you perform exercise on regular basis?** | | | | | | | | |
| | Yes | 00 | 00 | 00 | 00 | 00 | $(x^2) = 40.68$ | S |
| | No | 06 | 31 | 19 | 04 | 00 | Df=12 | |
| | | | | | | | 't'=21.03 | |

CONCLUSION:-

On the basis of finding of the study , it was concluded that effectiveness of knack

technique to improve the quality of life with urinary incontinence among menopausal women the concept regarding knack technique was improve the QOL with urinary incontinence to the mother which was indicated by significant decrease in post- test scores.

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