

## STRESS URINARY INCONTINENCE (SUI) AND IT'S CONTRIBUTING FACTORS AMONG PERIMENOPAUSAL WOMEN

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### INTRODUCTION

Urinary incontinence (UI) is a vital health issues that affects more than 200 million people worldwide. Also it has been underrated medical problem with vast social implications. Urinary incontinence (UI) is one of the priority health issue acknowledged by WHO. Repeatedly seen in women after middle age (with frequent pregnancies and vaginal deliveries). UI also known as involuntary urination, is any uncontrolled flow of urine It is a usual and troublesome problem, which may have a huge impact on quality of life.<sup>[1]</sup> It is a crucial health problem with substantial social and economic repercussions and important to pick out prevalence with regard to incontinence, the likelihood of having incontinence within a defined population at a stipulated point in time—is the more relevant when considering its influence and the utilization of healthcare means. Incontinence also catalyse psychological and medical indisposition, significantly striking health-related quality of life in a way similar to other incurable medical conditions including osteoporosis, COPD and stroke.<sup>[2]</sup>

Numerous unrestrained risk factors and predictors influence the development and incidence of UI in women. Although UI is relatively usual in women, data is hardly ever available about the epidemiology of UI. This review will bridge some of the gaps in our current understanding related to risk factors and predictors of UI in women. Incontinence may be a out-turn of bladder and sphincter dysfunction, or a combination of both. In youthful women, the prevalence of incontinence is usually little, but prevalence brow around menopause, with a steady increase there-after into later life.<sup>[3]</sup>

### Need for the study

Urinary incontinence (UI) is a significant clinical problem that has sage effect on the quality of life and activities of daily living. Women with UI explains unease, shame and humiliation and agonized about smell of urine from pads and wet inner clothing. In fact UI is under reported and under diagnosed across all age categories. Thus, no precise estimate of UI available for people over the age spectrum. Almost all studies, however, accord that prevalence rises with age and that prevalence is high-rise among men at all ages.

Throughout Asia, UI prevails a sensitive and taboo subject; there is a demand for more open discussion. For the sufferer UI brings convalescence, social embarrassment, drop of self esteem and loss of face all of

which evokes omnipresent underestimation and under diagnosis.<sup>[4]</sup> Identification of the risk factors is required for clinical decisions and the development of a preventive approach to decrease the incontinence figure in women. For instance, increased awareness among women at threat may help lifestyle behavior modification and upgrade women's awareness of the potentiality of prevention and treatment.<sup>[5]</sup>

Stress urinary incontinence (SUI) is the 'complaint of involuntary leakage on effort or exertion, or on sneezing or coughing'. The mainstay of treatment remains pelvic floor exercises and lifestyle options, such as weight loss (NICE, 2006).<sup>[6]</sup> A well-organized national health programme for both women with and without UI, and for health workers in primary health centres, is highly recommended.<sup>[7]</sup> Nurses should make use of best evidence to escort the needed assessment, treatment, and management of UI. Once the type of tenacious UI is found, nurses are in the best point to organize a personalized plan of care, which includes healthy urinary behaviour skills and collaboration with interdisciplinary team to promote continence.<sup>[8]</sup>

The symptoms and their severity differ from woman to woman. The most repeated menopausal symptoms have been well researched and there is plenty of literature focusing on the most frequently incurred manifestations.

However, some of the less well announced and less well researched symptoms can be equally as suffering, but because they are little as well known or discussed, they may be perplexing for women leaving them to surprise whether symptoms are actually associated with the menopause, or whether there may be a root cause. A better understanding of the kind of the risk for these common symptoms in menopausal women will backing prevention, detection, and treatment.

### Background of the study

The prevalence escalates with age. Nevertheless, there seems to be top prevalence in women aged 45-55 years.<sup>[9]</sup> The prevalence of stress urinary incontinence grows with age. Also, like all muscles, the bladder and urethra muscles mislay some of their strength as you get older. By means of this, you may not be hold as much urine as you get older.<sup>[10]</sup> UI incidence arises with growing age, especially in age groups 25-29 and 45-49 years.<sup>[11]</sup> In menopause; several women have bladder control problems after they menopause. The urethra aids keep urine in the bladder until a person is ready to urinate. Researchers anticipate that having low levels of the hormone oestrogen after menopause may diminish the urethral functions.<sup>[12]</sup> Many perimenopausal women facing urinary incontinence with 25% keeping clothes or changing inner garments on several days per week.<sup>[13]</sup> In particular, Stress incontinence is linked with raised BMI, constipation and obstetric history. Extra risk factors include increased age, menopause, alcohol consumption, smoking, HTN, diabetes and family history.<sup>[14&15]</sup> The average age established also spell out why only 4.4% of the women were in menopause, a pertinent factor for a low prevalence of UI. Logistic regression analysis revealed that, the risk of UI increased 2.6 times with menopause.

Urinary incontinence is a common ill health among women, with the prevalence differing from 8- 45% in various studies. A cross-sectional research was conducted among the population around SRM-IMS, Bareilly. Out of 2860 inhabitants, 464 women were interviewed by using International Consultation on Incontinence Questionnaire – Short Form (ICIQ-SF). The findings revealed that, 236 females were selected for this study. The comprehensive prevalence of urinary incontinence was about 12%. Based on types, women had stress urinary incontinence, urgency incontinence and mixed type of urinary incontinence 22%, 38% and 38% respectively. Study concluded that numerous obstetrical factors do contribute to urinary incontinence and does influence on quality of life of a woman having urinary incontinence.<sup>[6]</sup>

A longitudinal prospective, multi-ethnic, multisite study cohort study to document prevalence urinary incontinence among perimenopausal women ( $n = 3302$ ) and to find out risk factors, and assess the effect of seriousness on women's daily lives. Interview and self-answered questionnaires assessed most variables of

interest. BMI and diabetes mellitus were measured clinically. Incontinence severity was obtained by multiplying frequency by volume dribbled. Risk factors and effect on treatment seeking, bother, and night time voiding were assessed for each ethnic group and the total population. The results shown that, the Mean age was 46.4 years with 57% prevalence categorized with 15% moderate and 10% severe. Biologic factors contributed the major risk for severity, precisely perimenopausal compared with pre-menopausal status (odds ratio [OR 1.35), BMI (OR 1.04), DM (OR 1.55) and current smoking (OR 1.38). Non-white groups had lesser risk, but the relationship of ethnicity is complex and majority of perimenopausal women experience urinary incontinence with 25%.<sup>[13]</sup>

A study conducted in rural community of Delhi to find the mean age at attaining menopause and the prevalence of different self-answered menopausal symptoms complained among 252 postmenopausal women of 40-54 years. The study suggested that, mean age at attaining menopause was 46.24 (SD = 3.38) years. Only 4 (1.6%) postmenopausal women had premature menopause. A total of 225 (89.3%) postmenopausal women experienced at least one or more menopausal symptom(s). Study concluded by stating the necessity of critical introspection of health needs of postmenopausal woman and specific components can be integrated in the national health programs.<sup>[16]</sup>

A cross-sectional study done in 2012 to February 2013 to know the epidemiological profile of peri and postmenopausal women aged 40 to 50 years. Data was collected by personal interview technique by home visits. The results shown that, the average age at menopause amongst the study subjects was 45 yrs. The most common problem faced by the respondents was somatic symptoms. Among those the most common was muscle joint pains 65.1%. This study found significant association in marital status, parity, tobacco chewing and increased the occurrence of menopausal symptoms and urinary incontinence of 8.2%. Study concluded that, there is a huge burden of menopausal symptoms in women and the menopausal symptoms are caused by enormous socio-demographic factors like marital status, parity, tobacco chewing.<sup>[8]</sup>

A study done to identify the age at outset of menopause and the prevalence of menopause and menopausal symptoms among 352 South Indian women. Methodology included the Menopause-Specific Quality of Life (MENQOL) questionnaire and the data were presented as percentages for qualitative variable. Results shown that, the mean age at menopause was 48.7 years. Most frequent menopausal symptoms were muscle and joint pain, tiredness, poor memory, lower backache and difficulty in sleeping and 29.8 % was reported Involuntary urination while coughing/laughing. In nutshell, the age at onset of menopause in southern Karnataka (India) is 48.7 years which is four years more

than the mean menopause age for Indian women. This could be attributed to better socio-economic and health-care facility in this region.<sup>[17]</sup>

### Objectives

Objectives of the study will be to,

1. Estimate the prevalence of SUI among perimenopausal women in selected districts of Kerala.
2. Identify the contributing factors of Stress Urinary Incontinence (SUI) among perimenopausal women
3. Explore the experience of Stress Urinary Incontinence (SUI) among perimenopausal women
4. Find out the association between SUI and selected variables.
5. Identify the evidence based interventions for the primary prevention and management of SUI

6. Develop an evidence based nursing care protocol for the primary prevention and management of SUI.

### Research Questions and Hypothesis

Since the study design to be planned like a mixed method; research question will be formulated for both components.

1. How prevalent is SUI, types of SUI, their health seeking behaviour, perceived barriers to seek treatment, treatment modalities of SUI?
2. What are the contributing factors of SUI among perimenopausal women?
3. How is SUI experienced by perimenopausal women? (Qualitative part)
4. Identify the evidence based nursing interventions for the prevention and management of SUI among perimenopausal women?

### Research Methodology

<b>Research Approach</b>	Mixed Method Approach
<b>Research Design</b>	Exploratory survey design- Convergent Parallel design (Concurrent) <sup>[18]</sup>
<b>Research setting</b>	Selected community areas in Two Districts Kerala
<b>Sample size</b>	800 peimenopausal women
<b>Sampling Technique:</b>	Probability Multi stage –Cluster sampling
<b>Method of Data Collection:</b>	The whole study will be conducted in two phases: <b>Phase I:</b> Exploring SUI and its contributing factors <b>Phase II:</b> Development of Evidence based nursing care protocol.
<b>Criteria for sample selection</b>	
Inclusion Criteria	1. Women aged $\leq 40 - 55$ years. <sup>[7,17]</sup> 2. Women who agreed to participate in the study
Exclusion Criteria	1. Pregnancy or delivery in last three months <sup>7</sup> 2. Gynecological or Lower Urinary tract surgery during previous three months. <sup>[7]</sup> 3. Women with Acute Urinary Infections, Neurological diseases and Diabetes. <sup>[16]</sup> 4. Women with involuntary leakage of urine through sites other than normal urethra. <sup>[16]</sup> 5. Women with induced menopause, hysterectomy, receiving any kind of hormonal therapy in preceding six months or women having confirmed thyroid and adrenal illness. <sup>[17]</sup>
Tools/Instruments to be used:	1. QUID-6: to diagnose the case 2. ICIQ (SF)- to know the impact of SUI 3. IIQ- 7- to know the impact of SUI 4. Semi structured questionnaire for assessing the personal experiences of women with SUI.

### Research timeline

The project is expected to be concluded in two years (52 weeks) with the following indicated as the activity's durations for every section of the research project:

Month & Year	Activities planned
January-March 2021	Content validation, modifications and translations of tools Phase II : Systematic Review starts Obtaining permission from selected community area
April- August 2021	Pilot study
September – October 2021	Phase I: Data collection starts
November- Dec 2021	Phase II : Preparation of Protocol
January -February 2022 March- May 2022	Data Analysis
June- August 2022	Testing for validity- Protocol
September-November2022	Writing Report
December 2022	Submission of Project Report