



Risk Factors of Urogenital Problems among Perimenopausal Women

Suchithra B.S.^{1,✉} Rajeev T.P.² Fatima Dsilva³

¹Department of Community Health Nursing, Nitte Usha Institute of Nursing Sciences, Nitte (deemed to be University), Mangaluru, Karnataka, India

²Department of Urology, K.S. Hegde Charitable Hospital, Mangaluru, Karnataka, India

³Faculty of Nursing Sciences, Nitte Usha Institute of Nursing Sciences, Nitte (deemed to be University), Mangaluru, Karnataka, India

Address for correspondence Rajeev T.P., MBBS, MS, DNB, MCH, DNB, Department of Urology, K.S. Hegde Charitable Hospital, Derlakatte, Mangaluru, Karnataka 575018, India (e-mail: rajeevtp@nitte.edu.in).

J Health Allied Sci^{NU} 2022;12:42–46.

Abstract

Introduction Menopause is a natural event that results from cessation of the menstrual cycle. It usually occurs in midlife, marking the end of women's reproductive life. Perimenopause refers to the time at which our body makes the natural transition to the menopause and may last for 4 to 8 years. A lot of urogenital problems start appearing after the age of 40 in women. The aim of the study is to identify the risk factors of the urogenital problems in perimenopausal women.

Materials and Methods An explorative survey design with a purposive sampling method was used to collect the data from 200 women and older than 40 years admitted to the tertiary care hospital and a community under Natekal Primary Health Center were selected for the study.

Results A total of 200 women were enrolled; 85 (42.5%) had urinary tract infections, 49 (24.5%) had urinary retention, 35 (17.5%) had vaginal dryness, 17 (8.5%) had urinary incontinence, 14 (7%) had a loss of libido. The majority, 76 (38%), had this problem for 1 to 2 years. There was association between selected demographic variables with risk factors like occupation (0.023; $P < 0.05$), number of children (0.023; $P < 0.05$), and mode of delivery (0.023; $P < 0.05$).

Conclusion The study result concludes that there was a significant association between urogenital problems and risk factors.

Keywords

- ▶ risk factors
- ▶ urogenital problem
- ▶ perimenopausal women

Introduction

Menopause is the permanent cessation of menstruation which is retrospectively determined following 12 months of amenorrhea during a midlife period and the most identifiable event of the perimenopausal period. The year immediately preceding and the decade afterward, however, are of far greater clinical significance. The perimenopausal period

encompasses the time before, during, and after menopause.¹ Menopausal health demands priority in the Indian scenario due to increased life expectancy and the growing population of menopausal women. Most are either unaware or do not pay adequate attention to urogenital problems.²

The most prevalent urogenital symptoms are vaginal dryness, vaginal irritation, and itching. Other urogenital complaints include dyspareunia, vaginal bleeding, frequency,

published online
July 29, 2021

DOI <https://doi.org/10.1055/s-0041-1731913>
ISSN 2582-4287

© 2021, Nitte (Deemed to be University).

This is an open access article published by Thieme under the terms of the Creative Commons Attribution-NonDerivative-NonCommercial-License, permitting copying and reproduction so long as the original work is given appropriate credit. Contents may not be used for commercial purposes, or adapted, remixed, transformed or built upon. (<https://creativecommons.org/licenses/by-nc-nd/4.0/>).

Thieme Medical and Scientific Publishers Pvt. Ltd. A-12, 2nd Floor, Sector 2, Noida-201301 UP, India

nocturnal urgency, stress urinary incontinence, and urinary tract infections.³ Increasing life expectancy has accompanied more women approaching menopause, and a majority of these women may spend one-third of their lives in postmenopausal years. Due to this growing population of menopausal women in India, their health demand is becoming a top priority. There has been an alarming increase in the population in India where there is a need to know factors contributing to the urogenital problems.⁴ This study was undertaken in this context.

Methods

An explorative survey design was adopted for the study. The sample size was calculated by using estimation of proportion, as the participants were from the hospital and from the community; a purposive sampling technique was used to collect data. A total of 200 women were selected from Justice K.S. Hegde Charitable Hospital and Urumane Community under Natekal Public Health Center and aged 40 years and above who have perimenopausal symptoms. In contrast, women who had congenital anomalies, were suffering from severe medical illness or were critically ill, had undergone surgery, and were on treatment were excluded from the study. Ethical consent for the work was given by the ethical committee NUINS/CON/NU/IEC/ 2019–20/1471 of the institute on April 10, 2019. Written permission was obtained from the concerned authority. The study's purpose and objectives were explained to the subjects; before data collection, informed written consent and participant information sheet was administered to the participants. A demographic proforma consisting of 8 items and a checklist on factors contributing to the urogenital problem consisting of 6 items were the tools used to collect data from the women. The reliability of the tool was assessed by using Cronbach's α , and it was found that the tool was reliable (0.82). The tool was given to experts in the field of community health, medical-surgical nursing, and public health for validation. The data were analyzed by using frequency percentage, and the chi-square test was used to find the association.

Results

The mean age of the women was 53 ± 6 years, most of the subjects had primary education 143 (71.5%), and the majority 156 (78%) were homemakers. The majority, 103 (51.5%), had income between Rs. 3,500 and Rs. 4,000. The majority, 112 (56%), had more than three children. The majority, 112(56%), belonged to a joint family. Total 156 (78%) had a history of normal delivery. The study also revealed that 85 (42.5%) had urinary tract infections, 49 (24.5%) had urinary retention, 30 (17.5%) had vaginal dryness, 17 (8.5%) had urinary incontinence, and 14(7%) had loss of libido (► **Table 1**).

Assessment of risk factor showed that 24 (12%) had a habit of drinking alcohol, 19 (9.5%) chewed tobacco, 24 (12%) underwent removal of the uterus in the past, 43 (21.5%) had diabetes, 86 (43%) had a history of hypertension, 25 (12.5%) had both diabetes and hypertension, 5 (2.5%) underwent

Table 1 Description of demographic characteristics of the subjects (N = 200)

S. No.	Demographic characteristics	Frequency	Percentage
1.	Age (y)		
	41–50	48	24
	51–60	120	60
	Above 60	32	16
2.	Education		
	No formal education	20	10
	Primary education	143	71.5
	Secondary education	37	18.5
3.	Occupation		
	Housewife	156	78
	Working woman	44	22
4.	Income status (Rs.)		
	<3,000	19	9.5
	3,500–4,000	103	51.5
	4,000–4,500	59	29.5
	>5,000	19	9.5
5.	No. of children in the family		
	1	10	5.0
	2	61	30.5
	3	112	56.0
	More than 3	17	8.5
6.	Type of family		
	Nuclear family	88	44
	Joint family	112	56
7.	Mode of delivery		
	Normal delivery	156	78
	Caesarean	44	22
8.	Urogenital problems		
	Urinary tract infection	85	42.5
	Urinary retention	49	24.5
	Loss of libido	14	7.0
	Vaginal dryness	35	17.5
	Urinary incontinence	17	8.5

hormone replacement therapy, 44 (22%) had the history of cesarean delivery, and 15 (7.5%) had a previous history of abdominal gynecological surgery (► **Table 2**).

The chi-square value was 21.6 ($p > 0.05$) at a 5% level of significance; it indicates a significant association between urogenital problems and risk factors (► **Table 3**).

The result depicts that there was an association between a selected demographic variable with risk factors like occupation (0.023; $p < 0.05$), parity (0.023; $p < 0.05$), and mode of delivery (0.023; $p < 0.05$) (► **Table 4**).

Table 2 Assessment of risk factors of urogenital problems (N = 200)

S. No.	Risk factors	Frequency	Percentage
1.	Drinking alcohol		
	Yes	24	12
	No	176	88
2.	Chewing tobacco		
	Yes	19	10
	No	181	90
3.	History of removal of the uterus		
	Yes	24	12
	No	176	88
4.	History of diabetes		
	Yes	43	21.5
	No	157	78.5
	History of hypertension		
	Yes	86	43
	No	114	57
	Both hypertension and diabetes		
	Yes	25	12.5
No	175	87.5	
5.	Hormone replacement therapy		
	Yes	5	2.5
	No	195	97.5
6.	Abdominal gynecological surgery		
	Yes	15	8
	No	185	92

Discussion

Menopause is a physiological event that occurs in all women who reach midlife; in the present study the mean age of the women was 53 ± 6 years, whereas the study conducted in an Estonian postmenopausal women showed the mean age group of 53.3 years.⁵ In a study by Swanson et al (2017), the mean age was 53.1.⁶ In the present study, 190 (95%) women were multiparous; similar findings were observed by Oliveira et al (2013), where a majority of the women were multipara.⁷ The present study depicts that 143 (71.5%) women had primary education and similar finding was shown in a study by Oskayi (239 [48.8%]).⁸ In the present study majority 156 (78%) of the women were homemakers; similar finding

was obtained from the study by Suchithra et al, where the majority of the women were homemakers.⁹ The study also revealed that 85 (42.5%) women had urinary tract infections; the study by Ai-Badr et al showed that 50 to 60% of women will develop urinary tract infections in their lifetimes.¹⁰ In the present study, 49 (24.5%) women had urinary retention, 14 (7%) had loss of libido, and 17 (8.5%) had urinary incontinence; similar findings can be observed in the 2016 study by Nath et al, which showed loss of libido (34.6%), vaginal dryness (26.5%), incontinence of urine (21.5%), and recurrent urinary tract infections (7.7%).⁴ The present study depicts 30 (17.5%) women who had vaginal dryness. A study by Gupta et al (2018) showed that vaginal dryness was the most common complaint 62%.¹¹

The present study shows that factors like the habit of drinking alcohol in 24 (12%) women, chewing tobacco in 19 (9.5%) women, 24 (12%) women with a history of hysterectomy, 43 (21.5%) women having diabetes, 86 (43%) women with a history of hypertension, 25 (12.5%) having both diabetes and hypertension, 5 (2.5%) who underwent hormone replacement therapy, 44 (22%) with the history of cesarean delivery, and 15 (7.5%) women who had a previous history of abdominal gynecological surgery were of importance. These findings were supported by the study of Chang et al which revealed that diabetic mellitus (odds ratio [OR] = 1.653; 95% confidence interval [CI] 1.105–2.474) was the risk factor for urinary problems.¹² Similar findings were obtained in the study by Sensoy et al (2013), which showed that hypertension, diabetes, and parity are associated with urinary incontinence as risk factors.¹³ These findings were also supported by Biswas et al (2017) that the history of gynecological operation (adjusted odds ratio 3.84 [1.16–12.66]) was the factor.¹⁴

The chi-square value was 21.6 ($p > 0.05$) at a 5% level of significance. It indicates there was a significant association between urogenital problems and risk factors. Also, there was an association between a selected demographic variable with risk factors like occupation (0.023; $p < 0.05$), parity (0.023; $p < 0.05$), and mode of delivery (0.023; $p < 0.05$); it was correlated with the study by Singh et al (2013) which shows that multiparity, vaginal delivery, and menopause were found to be significantly associated with overall incontinence.¹⁵

Conclusion

This study highlights the urogenital problems experienced by perimenopausal women. There is a need to develop informational and educational programs that create awareness

Table 3 Association of between urogenital problems with risk factors by using chi-square test (N = 200)

Urogenital problems	Risk factors	Urogenital factors		Chi-square	DF	p-Value
		<1	>2			
	Urinary tract Infection	48	37			
	Urinary retention	28	21	21.6	5	0.01
	Loss of libido	4	10			
	Vaginal dryness	16	4			
	Urinary incontinence	13	4			

Table 4 An association between demographic variables and risk factors by using a chi-square test ($N = 200$)

	Demographic variables	Urogenital risk factors		Chi-square	DF	p-Value
		<1	>2			
Age (y)	41–50	26	22	3.551	2	0.169 $p > 0.05$ NS
	51–60	74	46			
	>60	24	8			
Education	No formal education	13	7	3.45	2	0.180 $p > 0.05$ NS
	Primary education	93	50			
	Secondary education	18	19			
Occupation	Housewife	106	55	5.16	1	0.023 $p < 0.05$ S
	Working woman	18	21			
Income (Rs.)	<3,000	8	11	5.47	3	0.140 $p > 0.05$ NS
	3,500–4,000	68	35			
	4,000–4,500	34	25			
	>5,000	14	5			
No. of children	1	3	7	11.52	3	0.023 $p < 0.05$ S
	2	32	29			
	3	80	32			
	>3	9	8			
Type of family	Nuclear family	51	37	1.09	2	0.579 $p > 0.05$ NS
	Joint family	73	39			
Mode of delivery	Normal delivery	107	49	13.0	1	0.023 $p < 0.05$ S
	Cesarean delivery	17	27			

Abbreviations: NS, nonsignificant; S, significant.

among women about these problems so that they can recognize these symptoms early and address them correctly.

This study focused on the identification of risk factors of urogenital problems. The study was limited to only a single community of women population and focused only on the identification of risk factors. This study can be enhanced by undertaking specific interventions to improve the quality of life in women with urogenital problems. Health awareness will help women to become aware of many problems and be able to prevent any further complications.

Funding

Fund for the research project has been received by Nitte (deemed to be University).

Conflict of Interest

None declared.

References

- Nayak G, Kamath A, Kumar P, Rao A. A study of quality of life among perimenopausal women in selected coastal areas of Karnataka, India. *J Midlife Health* 2012;3(2):71–75
- Borker SA, Venugopalan PP, Bhat SN. Study of menopausal symptoms, and perceptions about menopause

- among women at a rural community in Kerala. *J Midlife Health* 2013;4(3):182–187
- Calleja-Agius J, Brincat MP. The urogenital system and the menopause. *Climacteric* 2015;18(1(Suppl 1)):18–22
- Nath A, Ahmed SJ, Saikia H, Sharma UK. Urogenital problems of postmenopausal women: a community based study in slums of Dibrugarh town. *Int J Contemp Med Res* 2016;3(10):2953–2956
- Buchsbaum GM, Chin M, Glantz C, Guzick D. Prevalence of urinary incontinence and associated risk factors in a cohort of nuns. *Obstet Gynecol* 2002;100(2):226–229
- Swenson CW, Kolenic GE, Trowbridge ER, et al. Obesity and stress urinary incontinence in women: compromised continence mechanism or excess bladder pressure during cough? *Int Urogynecol J Pelvic Floor Dysfunct* 2017;28(9):1377–1385
- Oliveira Cd, Seleme M, Cansi PF, et al. Urinary incontinence in pregnant women and its relation with socio-demographic variables and quality of life. *Rev Assoc Med Bras* (1992) 2013;59(5):460–466
- Oskay UY, Beji NK, Yalcin O. A study on urogenital complaints of postmenopausal women aged 50 and over. *Acta Obstet Gynecol Scand* 2005;84(1):72–78
- Suchithra BS, Dsilva F, Rajeev TP. Enhancing knowledge of women on urinary incontinence—a pre and post interventional study. *J Clin Diagn Res* 2020;14(11):17
- Al-Badr A, Al-Shaikh G. Recurrent urinary tract infections management in women: a review. *Sultan Qaboos Univ Med J* 2013;13(3):359–367

- 11 Gupta N, Aggarwal M, Sinha R, Varun N. Study on prevalence and severity of urogenital complaints in postmenopausal women at a tertiary care hospital. *J Midlife Health* 2018;9(3):130–134
- 12 Chang KM, Hsieh CH, Chiang HS, Lee TS. Risk factors for urinary incontinence among women aged 60 or over with hypertension in Taiwan. *Taiwan J Obstet Gynecol* 2014;53(2):183–186
- 13 Sensoy N, Dogan N, Ozek B, Karaaslan L. Urinary incontinence in women: prevalence rates, risk factors and impact on quality of life. *Pak J Med Sci* 2013;29(3):818–822
- 14 Biswas B, Bhattacharyya A, Dasgupta A, Karmakar A, Mallick N, Sembiah S. Urinary incontinence, its risk factors, and quality of life: a study among women aged 50 years and above in a rural health facility of West Bengal. *J Midlife Health* 2017;8(3):130–136
- 15 Singh U, Agarwal P, Verma ML, Dalela D, Singh N, Shankhwar P. Prevalence and risk factors of urinary incontinence in Indian women: a hospital-based survey. *Indian J Urol* 2013;29(1):31–36