



Original Article:

Prevalence of Genital Prolapse among Married Women in Southern Karnataka

Authors

Sahana A, PhD Scholar, Department of Physiotherapy, SOAHS, Manipal,
Bhamini Krishna Rao, Professor, Department of Physiotherapy, SOAHS, Manipal,
Shubha R Nayak, Assistant Lecturer, Department of Physiotherapy, SOAHS, Manipal,
Pratap Kumar, Head of Manipal Assisted Reproduction Centre, Department of Obstetrics and Gynecology, Kasturba Medical College, Manipal,
Veena Kamath, Professor, Department of Community Medicine, Kasturba Medical College, Manipal,
Asha Kamath, Selection grade lecturer (Biostat), Department of Community Medicine, Kasturba Medical College, Manipal

Corresponding Address

Sahana A,
PhD Scholar
Department of Physiotherapy
SOAHS, Manipal.
E Mail: sahana99@gmail.com

Citation

Sahana A, Rao BK, Nayak SR, Kumar P, Kamath V, Kamath A. Prevalence of Genital Prolapse among Married Women in Southern Karnataka. *Online J Health Allied Scs.* 2017;16(2):4. Available at URL: <http://www.ojhas.org/issue62/2017-2-4.html>

Submitted: March 11, 2017; Revised: Mar 31, 2017; Accepted: July 22, 2017; Published: July 30, 2017

Abstract: Aim: The aim of this cross-sectional study is to estimate the prevalence of genital prolapse among married women of Udupi taluk, Karnataka, India. Materials and Methods: A cross-sectional study was conducted on 1256 married women using a structured questionnaire. Women were interviewed in their residence using the Manipal Pelvic Floor Dysfunction screening questionnaire. Result: The mean age of the women participated in this study was 42.3±12.2. The overall prevalence of genital prolapse found in this study was 2% (n=25). Thirty-two percent (n=8) of the women with prolapse had symptoms of urinary incontinence. An association was reported between the age and the genital prolapse. Conclusion: This study shows a 2% (n=25) prevalence of genital prolapse in married women of Udupi Taluk.

Key Words: Genital prolapse, Urinary incontinence, Prevalence, Indian women, Pelvic organ prolapse

Introduction:

Pelvic organ prolapse is a common problem in women. About 40% of women aged 50 years and above have some degree of prolapse on examination.(1) Pelvic organ prolapse (POP) refers to the loss of support for the uterus, bladder, colon or rectum leading to prolapse of one or more of these organs into the vagina.(2) Symptoms of prolapse are generally worse when gravity is a factor (e.g., after long periods of standing or exercise) or at times of increased abdominal pressure, like straining or defecation, Valsalva manoeuvre and symptom gets better in gravity eliminated plane, for example, supine lying. The symptoms of prolapse are vaginal bulging, pelvic pressure, bleeding, discharge, infection, splinting/digitation and low back pain.(3) Clinically, the degree of prolapse is defined as within the introitus, at the introitus, or beyond introitus with or without straining.(2)

In spite of the changing outlook of women across the globe, many women of various ethnic groups are reluctant to report symptoms for various reasons. A few reasons for non-

consultation among the Indian women are fear of hospital visits, investigations and surgeries, poor financial status, shyness to report issues related to the reproductive system, lack of female doctors in the rural setup and dependency on their husband for treatment in terms of permission, escort and finance.(4) Lack of data on the prevalence of genital prolapse has motivated the investigators to conduct the current study. Thus, the present study aims to estimate the prevalence of genital prolapse among married women of Udupi taluk, Karnataka, India.

Materials and Methods:

This study was a part of a project titled “Prevalence and physiotherapy management of Pelvic Floor Dysfunction in women of Udupi Taluk” funded by Indian Council of Medical Research (ICMR). This cross-sectional study was conducted among six Rural Maternity and Child Welfare (RMCW) centres which are under the direct administration of Department of Community Medicine located at a distance of 5 – 25Kms from Manipal University. Each of these centers was divided into several localities for ease of access to the study subjects. (Table 1) This study was conducted during the period September 2012 to September 2015. Ethical clearance was obtained from the Institutional ethical committee. Verbal informed consent was taken from the subjects before the interview.

Table 1 shows the distribution of number of localities in each center

Center 1 (n)	Center 2 (n)	Center 3 (n)	Center 4 (n)	Center 5 (n)	Center 6 (n)
9	9	12	7	14	18

Inclusion criteria of this study were married women aged 18 years to 70 years including pregnant and postnatal women. Any acute illness, recent abdominal surgery, musculoskeletal issues impeding day-to-day activities, spinal cord injury

resulting in quadriplegia or paraplegia, cerebral palsy and cognitive impairment were the exclusion criteria.

Stratified random sampling with each locality in the RMCW being a stratum was used to select women from all the six RMCW centres. Lottery method was used to select women to be interviewed from each locality in proportion to the population size. Age stratification was done to ensure the inclusion of women ranging from 18 to 70 years. (Table 2) House to house survey was conducted and the women were interviewed in their residence.

Table 2 shows number of subjects in each age group, RMCW centers and total number of subjects in each age group from all RMCW center

Age group (Years)	Center 1	Center 2	Center 3	Center 4	Center 5	Center 6	Total (%)
18-27	25	14	29	23	16	23	130 (10.4)
28-37	64	27	68	80	60	73	372 (29.6)
38-47	53	42	52	65	64	54	330 (26.3)
48-57	43	34	45	52	53	52	279 (22.2)
58-70	21	22	22	25	21	34	145 (11.5)
Total	206	139	216	245	214	236	1256

A total of 1256 married women were interviewed with a structured validated Manipl Pelvic Floor Dysfunction screening questionnaire by the first author. The questionnaire consisted of socio-demographic details, obstetric history and screening questions related to the presence of genital prolapse with or without urinary incontinence. Obstetric history included number of children and type of delivery. Educational qualification was classified as those who had no schooling, those who had primary and secondary schooling (Class 1 - 12), and graduates (undergraduate and postgraduate). Occupation was classified as housewives, white collar jobs (Nurse, LIC agent, Lab technician, School teacher, Clerical job, office accountant), skilled worker (Tailor, Beautician), semi-skilled worker (Beedi rolling) and unskilled worker (Fish seller, coolie, attender, agricultural labourer). The definition of prolapse in this study was defined as the mass of flesh in the vagina or sensation of something coming out of the vagina like a lump or a bulge. There was a hundred percent participation rate among the study subjects.

Data analysis was done using SPSS (version 15). Prevalence was reported with 95% confidence interval. Chi-square test was performed to determine the association between the demographic factors which were age, education, occupation, parity and type of delivery and the genital prolapse. P value \leq 0.05 was considered as significant.

Result:

Age of the women participated in this study ranged from 18 to 70 years and the mean age of the participated women was 42.3 ± 12.2 . Eighty-seven percent of the women were housewives and 79% of the women had primary education and secondary education. One hundred and twenty-seven (10%) women were nulliparous, 942 (75%) had children ranging from one to three and 186 (15%) had children more than 3. The demographic characteristics of women with and without prolapse are described in Table 3.

Table 3 shows the demographic characteristics of women with and without PFD

Characteristics		Symptomatic (n=25) (%)	Asymptomatic (n=1231) (%)	p value
Age in years	18-27 yrs	0	123 (10)	0.02
	28-37 yrs	3 (12)	369 (30)	
	38-47 yrs	7 (28)	317 (25.8)	
	48 yrs and above	15 (60)	422 (34.3)	
Educational qualification	No schooling	3 (12)	160 (13)	0.81
	Primary and secondary education (class 1-12)	21 (84)	983 (79.9)	
	Graduate (UG & PG)	1 (4)	88 (7.1)	
Occupation	Housewife	21 (84)	1070 (86.9)	0.76
	White collar job	1 (4)	16 (1.3)	
	Skilled worker	0	11 (0.9)	
	Semi-skilled worker	2 (8)	69 (5.6)	
	Unskilled worker	1 (4)	65 (5.3)	
Number of children	Nulliparous	0	127 (10.3)	0.14
	One child	3 (12)	274 (22.3)	
	2-3 children	18 (72)	648 (52.6)	
	\geq 4 children	4 (16)	182 (14.8)	
Type of delivery	Vaginal delivery	22 (88)	857 (69.6)	0.20
	Caesarean section	2 (8)	182 (14.8)	
	Forceps delivery	1 (4)	65 (5.3)	

Overall, 25 (2%) women reported having symptoms of genital prolapse, of which 8 women had urinary incontinence along with genital prolapse. Three women had stress urinary incontinence; one woman reported urgency urinary incontinence and 4 women had mixed urinary incontinence. An association was reported between the age and the genital prolapse ($p=0.02$) (Table 3). Number of women with prolapse was greater in the age group 48 years and above ($n=15$) as compared to the others.

Discussion:

In the current study, the prevalence of self-reported genital prolapse was reported as 2% ($n=25$). In India, very few studies have been conducted in the area of genital prolapse and the present study is the one and only study conducted in Karnataka, South India with a large sample size of 1,256. Another similar study conducted in a resettlement colony of Chandigarh, India by Kumari S et al with a large sample size of 2,990 women reported the prevalence of self-reported genital prolapse was 7.6% ($n=227$). (4) The topography of the study setting, socio-economic background of the study subjects in the above study was similar to the current study. Internationally, among the several studies, MacLennan et al reported similar findings. This study was conducted among 1,546 metropolitan residents of South Australia, aged 15 to 97 years. The definition of genital prolapse used by MacLennan et al to define prolapse was similar to the current study. MacLennan et al reported the prevalence of genital prolapse as 6.3%. (5)

The data in this study suggested that the prevalence of genital prolapse was greater among the women who delivered vaginally, those who had 2-3 children and women aged \geq 48 years. A statistically significant association was found between age and genital prolapse. Advancing age is known as one of the non-modifiable risk factors that have been

associated with higher pelvic floor symptoms.(6) A study conducted by Kumari S et al, a greater number of women with genital prolapse (n=155) were found in a younger age group (25-44 years) and a considerable number of women (n=27) with genital prolapse was reported in 15-24 years. It was also reported that the higher parity (≥ 2 children) was associated with higher prevalence of genital prolapse unlike the findings in the current study.(4) Since the number of symptomatic women in the present study is less, remarking on the association of the factors with the genital prolapse will be less accurate.

Co-occurrence of urinary incontinence with prolapse was also reported in this study. Thirty-two percent (n=8) of the women with genital prolapse had urinary incontinence. Fifty percent (n=4) of these women had mixed urinary incontinence. Lawrence et al reported the prevalence of genital prolapse was 6% (226/4103). The occurrence of an additional pelvic floor disorder (either stress urinary incontinence, overactive bladder or anal incontinence) with genital prolapse was identified to be 69% which is much higher than our study.(7)

Although this is a large cross-sectional study with a sample size over 1000, there are a few limitations to this study. The data acquired in this study were only via the verbal response/the patient subjective recording. Use of clinical examination is warranted to confirm the findings. Lack of resources, time constraint and manpower was the reason for not conducting a clinical examination. Women with genital prolapse were advised to undergo a detailed gynaecological examination to confirm the findings.

Conclusion:

This study shows a relatively low prevalence of genital prolapse in married women of Udupi Taluk. Very few women seek treatment for genital prolapse for the reason being that they assume it to be a natural part of the aging process. These findings will help us in designing an educational program which can be directed more towards creating awareness on genital prolapse and other forms of pelvic floor dysfunction and preventive strategies rather than the curative aspect.

Conflict of Interest: Nil

Acknowledgement: We profusely thank Indian Council of Medical Research for funding a study on prevalence and physiotherapy treatment of pelvic floor dysfunction.

References

1. Hendrix SL, Clark A, Nygaard I, Aragaki A, Barnabei V, Mctiernan A. Pelvic organ prolapse in the Women's Health Initiative: Gravity and gravidity. *Am J Obs Gynecol.* 2002;186(6):1160–6.
2. Milsom I, Altman D, Cartwright R et al. Epidemiology of Urinary Incontinence (UI) and other Lower Urinary Tract Symptoms (LUTS), Pelvic Organ Prolapse (POP) and Anal Incontinence (AI). In: Abrams P, Cardozo L, Khoury S, Wein A. (Ed). *Incontinence.* 5th Edition. ICUD-EAU; 2012. p. 57–63.
3. Haylen BT, Ridder D De, Freeman RM, Swift SE, Berghmans B, Lee J, et al. An International Urogynecological Association (IUGA)/ International Continence Society (ICS) Joint Report on the Terminology for Female Pelvic Floor Dysfunction. 2010;20(December 2009):4–20.
4. Kumari S, Walia I, Singh A. Self-Reported uterine prolapse in a resettlement colony of North India. *J midwifery Women's Heal.* 2000;45(4):343–50.
5. MacLennan AH, Taylor AW, Wilson DH, Wilson D. Prevalence of PFD & their relationship to gender, age,

- parity & mode of delivery. *Br J Obstet Gynaecol.* 2000;107:1460–70.
6. Chow D, Rodri LV. Epidemiology and prevalence of pelvic organ prolapse. *Curr Opin Urol.* 2013;23(4):293–8.
7. Lawrence JM, Lukacz ES, Nager CW, Hsu JWY, Luber KM. Prevalence and Co-Occurrence of Pelvic Floor Disorders in Community-Dwelling Women. *Obstet Gynecol.* 2008;111(3):678–85.