

Relationship Between Pelvic Organ Prolapse and Urinary Symptoms in Women

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ABSTRACT

Objective: To investigate the relationship between pelvic organ prolapse (POP) and urine symptoms in women.

Study Design: Descriptive cross-sectional study.

Place and Duration of Study: This study was conducted at the Dera Ghazi Khan Medical College and Hospital from August 2022 to April 2023.

Methods: 140 women over the age of 18 who visited the urology outdoor clinic at Dera Ghazi Khan Medical College and Hospital with urogynecology concerns participated in the study. A standardized questionnaire was used to gather demographic and medical data. The presence and severity of urine symptoms were evaluated using a structured questionnaire created with the help of the International Consultation on Incontinence Questionnaire-Urinary Incontinence Short Form (ICIQ-UI SF) and the Overactive Bladder Symptom Score (OABSS). The POP-Q system was used to gauge the severity of POP.

Results: The women were 52.61 ± 12.7 years old on average. The majority of the women were Saraiki ethnic, married, from low socioeconomic backgrounds, lacked a basic education, and came from rural areas. The majority of the women claimed that their POP was mild. About 39.1% of POP-affected women claimed to have lost a few drops during a urine incontinence episode. About 77.5% of the female participants reported feeling embarrassed or self-conscious about their urinary symptoms.

Conclusion: POP was a significant problem for women in Dera Ghazi Khan, Pakistan, according to the study's findings. The findings of this study suggest that urinary symptoms, feelings of embarrassment or self-consciousness, and a willingness to seek medical assistance are all related to the severity of POP. While ethnicity and POP severity did not significantly correlate, education level was revealed to be a significant predictor of POP severity.

Key Words: pelvic organ prolapse, urine symptoms, embarrassment, self-consciousness, Dera Ghazi Khan, Pakistan

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INTRODUCTION

Stress urinary incontinence (SUI), the involuntary leakage of urine in response to physical exertion, and pelvic organ prolapse (POP), the descent of the pelvic organs from their normal locations in the pelvis, are common medical conditions that affect 30–40% of women in their lifetime.⁽¹⁾ While POP is brought on by varying degrees of weakening in the endopelvic fascia and the levator ani muscle complex, SUI is caused by a loss of support from the pelvic floor and the vaginal connective tissue surrounding the bladder neck and urethra.⁽²⁾

Because the pathophysiology of concurrent SUI and POP is similar, women with POP frequently have it.⁽³⁾ Pelvic organ prolapse (POP) is a typical clinical condition that can significantly affect a patient's quality of life as a result of symptoms such pelvic pressure, vaginal bulge, urine and bowel difficulties, or sexual dysfunction.⁽⁴⁾ Little is known about POP from Low and Middle Income Countries (LMIC), including its frequency and risk factors.⁽⁵⁾ A review conducted in 2011 of research on pelvic floor diseases in LMICs found 13 papers with data on POP, with prevalence estimates ranging from 3.4 to 56.4% and a mean of 19.7%.⁽⁶⁾ Women frequently experience urine incontinence, and between 15 and 55% of them are thought to experience symptoms in the lower urinary tract. The most prevalent types of urinary incontinence associated with stress are urge urinary incontinence and mixed urinary incontinence.⁽⁷⁾ It is a significant public health concern due to the physical, psychological, and social effects it has on women's quality of life⁽⁸⁾. The purpose of this investigation is to comprehend the connection between POP and urinary symptoms in a tertiary care setting, in order to offer clinicians useful

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information to help them recognize and treat urinary problems in POP patients more successfully.

METHODS

In urology outdoor at Dera Ghazi Khan Medical College and Hospital, we did a cross-sectional study with women who were 18 years of age and older and had urogynecology issues. Recruitment occurred between August 2022 to April 2023. Women who had hysterectomy for any reason and those with existing mental health disorder were excluded. Participants were recruited after taking informed consent, through a convenience sampling method. The estimated sample size required for this study, considering a 95% confidence level, margin of error of 5% and an estimated proportion of 10.1%, is approximately 140 participants⁽⁹⁾. Demographic and clinical data was collected using a structured questionnaire, including age, parity, menopausal status, and medical history. A standardized questionnaire was used to evaluate the presence and severity of urinary symptoms, designed with the help of the International Consultation on Incontinence Questionnaire-Urinary Incontinence Short Form (ICIQ-UI SF) (10) and the Overactive Bladder Symptom Score (OABSS)⁽¹¹⁾ and Pelvic Organ Prolapse Quantification (POP-Q) system for assessment of the presence and severity of POP⁽¹²⁾.

RESULTS

The mean age of the women in the study was 52.61 years (SD = 12.730). The majority of the women were married 89.94%,(135), had a low socioeconomic status 74.2%(112), did not have a basic education 61.6%(93), were of Sariki ethnicity 66.2%(100) and had an rural background 90.1%(136). The majority of the women reported that their POP was mild 43% (65). Approximately 24.5 % (37) of the women had any surgical procedure for POP. 39.1 % (59) of the women with POP reported to loose a few drops in an episode of urinary incontinence. Approximately 77.5 % (117) of the women felt embarrassed or self-conscious about their urinary symptoms. POP severity and feelings of embarrassment or self-consciousness about urine symptoms were significantly correlated $\chi^2(2) = 13.43, p .001$. Approximately 89.4 % (135) of the women had sought treatment for their urinary symptoms. The most common type of treatment that the women received was medication along with pelvic exercises 46.4 % (70). The degree of pelvic organ prolapse (POP) and the volume of urine lost during an episode of urinary incontinence were compared using the Chi-square test. The Chi-square test's findings were significant; $\chi^2(6) = 28.506; p .001$ suggesting that the two variables are related to one another.

Table No. 1: Chi-Square test

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	28.506	6	.000
Likelihood Ratio	35.830	6	.000
Linear-by-Linear Association	.867	1	.352
N of Valid Cases	91		

To determine whether there is a connection between ethnicity and the severity of POP, a Chi-square test was used. The Chi-square test's findings were not significant; $\chi^2 (2) = 3.254, p =.197$. This suggests that the two variables have no link to one another. There was a significant correlation ($2(1) = 8.89, p =.003$) between seeking medical attention for urine symptoms and feeling embarrassed or self-conscious about them. The link between education and the degree of pelvic organ prolapse (POP) was determined using a Chi-square test. The findings were significant; $2(4) = 14.044, p =.007$. This suggests that the two variables are related to one another. Particularly, women with more education reported mild POP more frequently, but those with lower education reported moderate or severe POP more frequently.

Table No. 2: Chi-Square detail

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	14.044 ^a	4	.007
Likelihood Ratio	19.729	4	.001
Linear-by-Linear Association	.887	1	.346
N of Valid Cases	140		

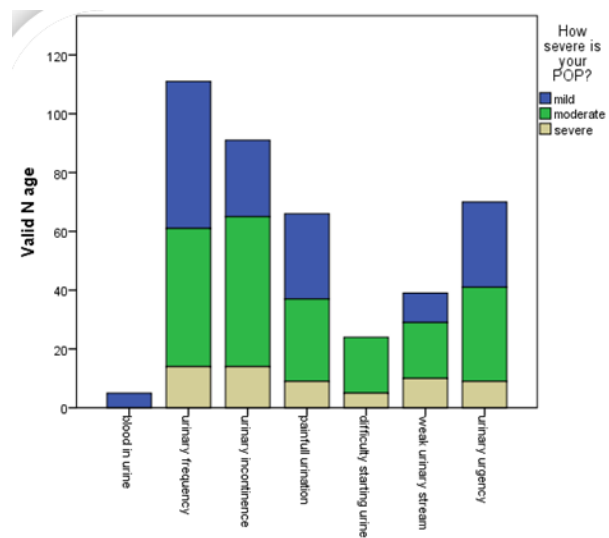


Figure No. 1: Urinary Symptoms.

DISCUSSION

The current study suggest that there is a statistically significant link between education and the degree of pelvic organ prolapse (POP). Particularly, women with more education reported mild POP more frequently, but those with lower education reported moderate or severe POP more frequently. In Turkish population the level of education was found to be significantly lower in women with prolapse compared to women without prolapse⁽¹²⁾. Ethnicity was a significant predictor of the kind of prolapse, according to an observational research of Caucasian and East Asian women who visited a tertiary urogynecology clinic with POP symptoms.⁽¹³⁾ The diverse POP experiences among various racial/ethnic groups were also highlighted by a systematic review.⁽¹⁴⁾ However, we could not find any significant relation between ethnicity and severity of POP. Similar to our study's findings, another study found that older women living in rural locations were more negatively impacted by urinary incontinence on their quality of life.⁽¹⁵⁾ It is probable that older women from rural areas with lesser levels of education are less knowledgeable about UI as a medical problem. A study conducted in Thailand found a moderate correlation between POP severity and voiding difficulty. The study reported reported 63% of women presented with urinary leakage⁽¹⁶⁾. These findings are in line with ours that women with severe POP were more likely than those with mild or moderate POP to report frequent urination, urgent urination, and incontinence. This implies that urine symptoms may serve as a gauge of POP severity. A Qualitative study conducted in Canada found that POP-affected women were more prone to feel embarrassed or self-conscious about their urine symptoms. The severity of POP, the frequency of urine incontinence, and the effect of POP on everyday activities were all linked to this shame.⁽¹⁷⁾ In current study Women with more severe POP were more likely to experience embarrassment or self-consciousness (52% vs. 14%). Women who had sought medical attention for urinary problems were more likely to feel embarrassed or self-conscious (67% vs. 25%). These results imply that embarrassment is a major problem for women with urinary symptoms and severe POP, and that seeking medical attention may be one of the contributing factors. According to the study's findings, it's critical for medical professionals to be aware of the possibility of embarrassment in POP-positive women. Providers need to be aware of this problem and provide women the chance to talk about their emotions of embarrassment.

Limitations: Because it was a single centered study, its conclusions might not apply to other populations. Since the research was cross-sectional and self-reported data, which is subject to bias, was employed, it is not possible to establish a causal link between POP and urinary symptoms. Despite these limitations, the

findings of this study provide important information about the relationship between POP and urinary symptoms in women. Additional investigation is required to verify these results and examine the processes behind this connection.

CONCLUSION

POP is a serious issue for women in Dera Ghazi Khan, Pakistan, according to the study. A number of factors, including severity, ethnicity, education, and feelings of embarrassment or self-consciousness, were also discovered to be linked to POP, according to the study. The findings of this study suggest that urinary symptoms, feelings of embarrassment or self-consciousness, and a willingness to seek medical assistance are all related to the severity of POP. While ethnicity and POP severity did not significantly correlate, education level was revealed to be a significant predictor of POP severity. These results emphasize the significance of dealing with the psychological impact of urine symptoms, taking education levels into account while managing POP, and understanding the value of obtaining medical assistance when dealing with these symptoms. Furthermore, healthcare professionals must be aware of the resources available to Pakistani women with POP and endeavor to ensure that all women have access to high-quality care.

Author's Contribution:

Concept & Design of Study:	Asra Aleem
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Final Approval of version:	Asra Aleem

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