

UNVEILING THE SILENT EPIDEMIC OF UTERINE PROLAPSE: A CALL FOR BETTER FAMILY PLANNING

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ABSTRACT OBJECTIVES

This study aimed to investigate the degree and distribution of uterine prolapse among women presenting with the illness.

METHODOLOGY

This study is a retrospective analysis of secondary data from the hospital medical records (HMIS) of Hayatabad Medical Complex, Peshawar, Pakistan. A total of 298 patient records were reviewed using information from the hospital's electronic medical record system. The inclusion criteria include women with uterine prolapse, and, given consent, exclusion criteria include women with insufficient medical records and who have undergone hysterectomy. Histopathological reports were examined, including patient demographics (age) and clinical history (including parity and degree of prolapse). A statistical analysis was conducted using SPSS version 25.

RESULTS

Among 298 patients with uterine prolapse, 90.6% had severe grades (Grade 3 or 4), with Grade 4 accounting for 68.8%. The majority were over 50 years old (79.2%), demonstrating a substantial link with postmenopausal status. Furthermore, 92.6% were grand multiparous, emphasizing high parity as a significant risk factor. Grand multiparous women and older age groups were more likely to have higher grades among the 298 patients. Age vs. Grading: $\chi^2 = 3.329$, $df = 12$, $p = 0.993$; Parity vs. Grading: $\chi^2 = 4.195$, $df = 9$, $p = 0.898$ did not, however, show statistical significance.

CONCLUSION

Older and grand multiparous women were the most likely to experience severe uterine prolapse, highlighting the significance of age and high parity as clinical risk factors. However, no statistically significant correlation was discovered. To alleviate the burden of uterine prolapse in low-resource settings, these findings underscore the importance of strengthening family planning services, early screening, and preventive measures.

KEYWORDS: Uterine Prolapse, Multiparity, Family Planning, Contraception, Prevalence, Pakistan

INTRODUCTION

Procidentia, or prolapsed pelvic organs, is a serious public health issue, particularly for women living in low-resource environments. Pelvic floor muscle weakness brought on by childbirth, aging, and inadequate postnatal care is the leading cause of the disorder, which entails the fall of pelvic organs, including the uterus, bladder, or rectum, into the vaginal canal.¹ Procidentia is incredibly common in nations like Pakistan, where maternal health issues continue to exist, particularly among rural populations with little access to medical treatment. Uterine prolapse, also known as procidentia, is graded according to the extent of the uterus's descent relative to the vaginal introitus. According to the traditional system, Grade I occurs when the cervix descends into the vagina but does not reach the introitus, Grade II

when it does reach the introitus, Grade III when the cervix and a portion of the uterus protrude outside, and Grade IV (complete procidentia) when the entire uterus lies outside the introitus.² The incidence of procidentia has increased in Pakistan due to the country's high fertility rates and multiple pregnancies. Family planning is a well-established approach to reducing the risks to maternal and infant health.³ However, its adoption is still low because of cultural obstacles, a lack of knowledge, and restricted access to contraceptive options.⁴ According to studies, by enabling women to spread out pregnancies and preventing undue strain on the pelvic tissues, better family planning techniques can dramatically lower the frequency of reproductive health conditions, including pelvic organ prolapse.⁵ In Pakistan, uterine prolapse is still underreported, resulting in social humiliation, psychological anguish, and physical suffering for those women who have it.⁶

Cultural barriers and limited access to healthcare further hinder timely intervention and treatment.⁷ This study intends to offer suggestions for lessening the burden of uterine prolapse and enhancing women's reproductive health outcomes by supporting family planning, birth spacing, and maternal health care. Few studies have explicitly looked at the frequency of procidentia in Pakistan and the potential contribution of enhanced family planning services to its prevention, despite the well-established association between family planning and improved reproductive health outcomes.⁸ By offering up-to-date procidentia prevalence data and investigating the connection between family planning methods and the prevalence of pelvic organ prolapse in Pakistan, this study seeks to close this gap. The purpose of this study was to investigate the degree and distribution of uterine prolapse among women presenting with the condition. It sought to determine the age-related prevalence and the link between parity and the degree of prolapse. Furthermore, the study aimed to highlight the importance of proper family planning in minimizing high parity, a significant risk factor for advanced uterine prolapse. By highlighting the importance of early diagnosis, preventive measures, and comprehensive management of uterine prolapse through enhanced family planning services, this study aims to contribute to the improvement of clinical practice. This study is noteworthy because it focuses on a topic that has received little attention in prior research: the relationship between family planning and uterine prolapse prevention in Pakistan.

METHODOLOGY

This is a descriptive, retrospective study conducted at Hayatabad Medical Complex (HMC) in Peshawar, Pakistan, spanning a period of 6 years (from December 2019 to June 2025). The sample size consisted of 298 records, selected through consecutive sampling from the available records. To identify risk factors and patterns, variables such as patient demographics (age), obstetric history (parity), and clinical outcomes (degree of prolapse) were examined. The study included women clinically diagnosed with uterine prolapse at Hayatabad Medical Complex (HMC), Peshawar, who had given informed consent and had comprehensive demographic, obstetric, and clinical information available in the hospital's medical record system. To reduce confounding factors, patients with incomplete or missing records, hysterectomy, or prolapse caused by pelvic malignancy, prior pelvic surgery, significant comorbidities, or active pelvic infections were excluded. The data were analyzed using statistical techniques in SPSS version 25. The Institutional Review Board of the Hayatabad Medical Complex in

Peshawar granted ethical approval for this study. Before undergoing surgery for a hysterectomy, all patients provided written informed consent. Therefore, this retrospective review did not require any further consent. Throughout the trial, patient data was kept completely anonymous and confidential. There is no conflict of interest between the authors. This study was conducted using a retrospective assessment of hospital records, which may have been influenced by poor documentation and reporting bias. Potential unmeasured confounders, such as nutritional status, socioeconomic situations, birth mode of delivery, body mass index, and comorbidities, were not recorded in the medical records and may have influenced the results. Furthermore, since the study was conducted in a single tertiary care institution, the findings may not be generalizable to the broader community.

RESULTS

Results show that older, large multiparous women account for the bulk of uterine prolapse cases, with most presenting in advanced stages (Grade 3 or 4). This indicates a triple load of age-related tissue degradation, numerous childbirths, and delayed treatment-seeking, all of which can be mitigated or managed through appropriate family planning, postpartum pelvic care, and public awareness campaigns. As indicated in Figure 1, the majority of women who presented with uterine prolapse were 50 years or older. Specifically, 43.96% were over 60 years old and 35.23% were between the ages of 50 and 59, indicating that postmenopausal women accounted for nearly four out of every five occurrences (79.2%). This pattern suggests a strong association between advancing age and the likelihood of pelvic organ prolapse, likely due to age-related weakening of the pelvic floor muscles and hormonal changes. In contrast, younger women aged 20-39 years accounted for only 5% of overall cases, reinforcing the notion that uterine prolapse is primarily a mid- to late-life disorder.

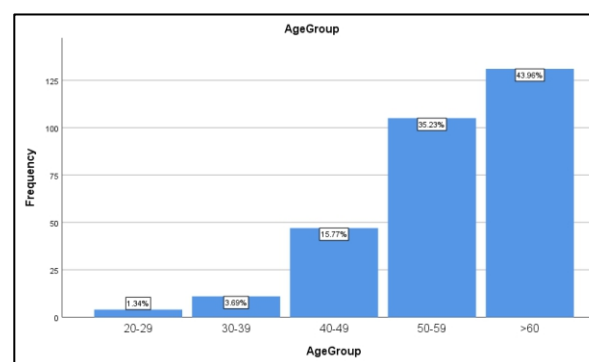


Figure 1: Age Group Distribution

The majority of patients (90.6%) had severe prolapse (Grades 3 and 4). Grade 4 accounts for 68.8% of all instances, as shown in Figure 2. This late presentation may indicate delayed health-seeking behavior, low awareness, or restricted access to care.

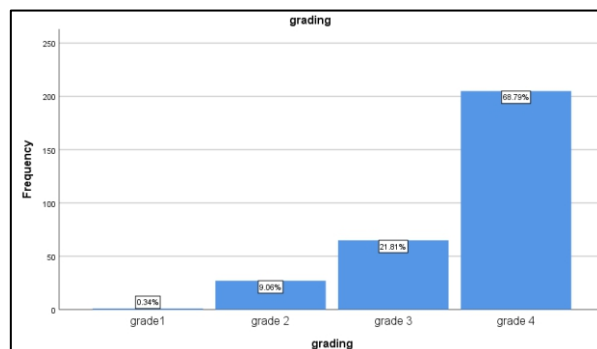


Figure 2: Grading of Uterine Prolapse

More than 92% of women had grand multiparity (five or more births), as shown in Figure 3. A few women had no birth. This clearly identifies high parity as the primary risk factor. Repeated vaginal deliveries may strain and damage the pelvic floor support tissues.

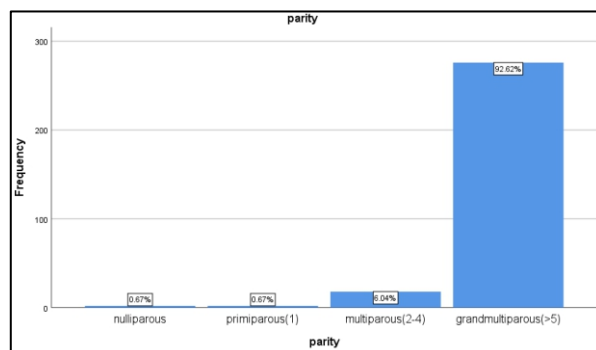


Figure 1: Parity of the Patients

Figure 4 demonstrates that rising age is associated with more severe prolapse, with a significant increase in Grade 4 cases among women over 50. This is the cumulative consequence of age-related pelvic floor weakness and excessive parity over time. Early-stage prolapse is under-represented, potentially because of a delay in seeking medical attention or a lack of regular gynecological screening.

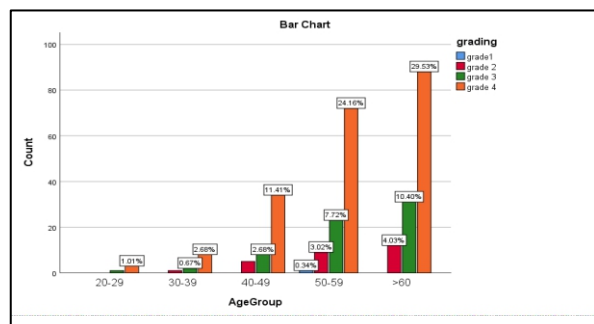


Figure 4: Age Group vs Grading

Higher grades seemed more common in older age groups, according to a cross-tabulation between age groups and Grading, as shown in Table 1. Nevertheless, the relationship was not statistically significant ($\chi^2 = 3.329$, $df = 12$, $p = 0.993$). Grand multiparous women (>5 births) were also more likely to receive higher grades when parity and Grading were compared, as shown in Table 2. However, this relationship was not statistically significant ($\chi^2 = 4.195$, $df = 9$, $p = 0.898$).

Table 1: Cross-tabulation between Grading and Age Group

		Grading				χ^2	p-value
		grade 1	grade 2	grade 3	grade 4		
Age Group	20-29	3.329	0.993	01	03	3.329	0.993
	30-39	00	01	02	08		
	40-49	00	05	8	34		
	50-59	01	09	23	72		
	>60	00	12	31	88		

Table 2: Cross-tabulation between parity and Grading

		Grading				χ^2	p-value
		grade 1	grade 2	grade 3	grade 4		
parity	nulliparous	0	0	0	2	4.195	0.898
	primiparous(1)	0	0	0	2		
	multiparous(2-4)	0	3	2	13		
	grand multiparous(>5)	1	24	63	188		
	nulliparous	0	0	0	2		

DISCUSSION

The findings indicate that older age, high parity, and late-stage prolapse are the most prevalent characteristics in this population. The majority of the women were over 50 years old, had more than five deliveries, and had Grade 4 uterine prolapse. This indicates a pattern of delayed diagnosis and preventable development, emphasizing the critical need for community-based education, family planning services, and early intervention initiatives in similar populations. This study's therapeutic relevance and contribution to our understanding of the prevalence of uterine prolapse in a resource-constrained context, such as HMC Peshawar, are its primary merits. The study provides valuable insights into region-specific risk factors, such as high parity and inadequate birth spacing, by focusing on a population with limited access to family planning and maternal healthcare services. Furthermore, thorough data collection, which includes obstetric history and access to healthcare, enhances the reliability and validity of the findings. In the current study, the majority of women with uterine prolapse were between the ages of 40 and 59 (48.32%), followed by those aged

60 to 79 (34.23%). This is consistent with data from previous hospital-based research, which shows that pelvic organ prolapse (POP) is widespread among women in their perimenopausal and early postmenopausal years.^{9,10} Badacho et al. found that the majority of women presenting with advanced uterine prolapse were between the ages of 40 and 60.¹¹ Furthermore, just 2.01% of your cohort was 80 years or older, which is comparable to data from institutional settings but differs from community-based surveys, in which older women frequently account for a larger proportion of instances.¹² According to studies conducted in Ethiopia and Nepal, the risk of uterine prolapse increases dramatically with each consecutive childbirth, especially if the deliveries were unaided or involved lengthy labor.¹³ This consistency adds to the documented link between multiple pregnancies and deterioration of pelvic support structures. In terms of severity, our data showed that the majority of women presented with grade III and IV prolapse. This conclusion is consistent with hospital-based research, where severe grades are more frequently recorded due to the symptomatic nature of such instances, requiring therapeutic attention.¹⁴ Recent studies suggest that older age groups (≥ 60 years) are more likely to be affected, emphasizing the importance of early identification and uterine-preserving treatments. Liang et al.¹⁵ and Deshpande et al.¹⁶ found a higher mean age in surgical cohorts, while Urdzík et al.¹⁷ and Gagyor et al.¹⁸ observed earlier interventions among women with better access to healthcare. Furthermore, recent research indicates that both parity and mode of delivery contribute significantly to pelvic floor dysfunction, lending credence to the parity-prolapse link reported in your findings by Mustafa-Mikhail et al.¹⁹ These disparities underscore the need for increased awareness and early access to care in low-resource settings. Nisar et al. found that the average age of 211 patients at Khyber Teaching Hospital in Peshawar was 52 years, with 33% being grand multiparous, 40% having repeated vaginal births, and 48% delivered by inexperienced attendants. While their sample includes older and higher-parity women, our significantly higher rate of grand multiparity highlights the urgent need for improved family planning integration to prevent excessive childbirths.²⁰ Karim and Khan's Karachi-based cross-sectional study (n = 197) employing POP-Q categorization discovered that the most common stage was II (52.6%), followed by III (27.6%), with no stage IV instances. This is in sharp contrast to our stage IV prevalence of 68.8%, indicating that our tertiary center receives more advanced referrals and has a higher case entrance threshold.²¹ Beyond biological dangers, cultural and healthcare system variables contribute to Pakistan's high uterine prolapse rate. Social norms that promote prominent families, limited

contraception usage, and reliance on home births increase vulnerability.²² Many women put off getting medical care owing to embarrassment, a lack of understanding, and a lack of control over their health decisions. Financial barriers, distance from tertiary care facilities, and inadequate transportation all contribute to delayed access to treatment.²³ These factors account for the majority of advanced-stage patients seen in this study. Addressing these issues involves community education, integrating family planning into primary care, and enhancing referral systems for early identification and intervention. The study, however, has some significant shortcomings. Due to its single-center design, the study's applicability to other parts of Pakistan remains limited. Additionally, using self-reported obstetric and gynecological histories raises the possibility of recall bias, which could compromise the accuracy of the data. Establishing causal links between risk variables and uterine prolapse is further limited by the study's cross-sectional design. Furthermore, although socioeconomic determinants are recognized, the study's findings would be strengthened by a more thorough examination of factors like income, education, and healthcare-seeking behavior. This study has significant implications for both public health policy and clinical practice. Improved maternal healthcare services are desperately needed, especially in underprivileged populations, as evidenced by the high occurrence of uterine prolapse. To encourage birth spacing and lower the risk of pelvic floor diseases, the results emphasize the significance of combining family planning programs with regular gynecological care. To enable prompt diagnosis and treatment, healthcare policymakers should also prioritize expanding access to early screening programs and pelvic health education. To guarantee that women obtain comprehensive reproductive health treatments, the study highlights the need to improve healthcare infrastructure, especially in remote areas. Several important questions remain, as establishing causal links between identified risk variables and the onset of prolapse is limited by the cross-sectional approach. Furthermore, neither the long-term health outcomes of women affected by the disease nor the efficacy of current family planning and maternity healthcare strategies in reducing the disease was examined in this study. The role played by socioeconomic determinants, such as access to healthcare, education, and income, has not been thoroughly examined. The psychological effects of uterine prolapse, such as its impacts on mental health, marital relationships, and societal stigma, are also not examined in this study. The viewpoints of medical professionals are also disregarded, especially about their awareness of and difficulties in controlling the illness. Furthermore, little is known about the behavioral and cultural factors that influence

healthcare-seeking behaviors. To enhance clinical care, future studies should also examine the knowledge, education, and difficulties faced by medical professionals in treating uterine prolapse. Additionally, researching the customs and cultural beliefs that shape healthcare choices may yield important information for creating focused awareness and prevention campaigns. By filling these gaps, multidisciplinary and longitudinal research will help develop more effective methods for uterine prolapse care, early detection, and prevention.

LIMITATIONS

This study's retrospective, single-center design may limit generalizability. It exclusively includes hospital-reported occurrences, which may exclude undetected or early-stage prolapse in the community. Some critical risk factors, such as BMI and delivery method, were not accessible. Incomplete records may have impacted data accuracy. The lack of follow-up prohibited the measurement of therapy outcomes.

CONCLUSIONS

Due to the cumulative effect of age and high parity on pelvic floor integrity, uterine prolapse mostly became a severe issue in older and grand multiparous women. The descriptive patterns highlight the value of family planning, prompt obstetric treatment, and early gynecological screening to lessen this hidden but avoidable burden, even though statistical significance was not demonstrated. In environments with limited resources, raising awareness and implementing preventive measures remain essential.

CONFLICT OF INTEREST: None

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AUTHORS CONTRIBUTION

Bakhtawar Kamal - Concept & Design; Data Acquisition; Data Analysis/Interpretation; Critical Revision; Final Approval

Saima Yasin - Concept & Design; Data Acquisition; Drafting Manuscript, Final Approval

Abbas Ghaffari - Concept & Design; Data Acquisition; Drafting Manuscript, Critical Revision; Final Approval

Shagufta Nasir Pervez - Concept & Design; Data Acquisition; Drafting Manuscript; Critical Revision; Supervision; Final Approval

Bushra Nasib - Concept & Design; Data Acquisition; Drafting Manuscript; Final Approval

The authors accept responsibility for all aspects of the work and will ensure that any concerns regarding the accuracy or integrity of any part are properly investigated and resolved.



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