

# Prevalence of Pelvic Floor Dysfunction in Women Residing in Rural Areas - A Cross-Sectional Study

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## ABSTRACT

Pelvic floor dysfunction (PFD) significantly impacts women's physical and mental health, particularly in rural areas where awareness is lacking. Physiotherapy interventions are vital, but rural women often lack awareness of them. A study in Vadner village, Maharashtra, surveyed 100 women aged 18 to 65 to assess PFD prevalence and awareness of treatment options. Results showed a 40% prevalence rate, with urinary incontinence being the most common at 32%. Despite 60% overall awareness of PFD, only 35% knew about medical treatments, and none were aware of physiotherapy interventions. There's a notable lack of awareness regarding pelvic floor exercises and physiotherapy for PFD. Treatment-seeking behaviour was limited, with only 4% consulting a doctor for perineal discomfort and opting for prolapse surgery. Increased awareness and access to comprehensive care are urgently needed, especially in rural areas. Addressing knowledge gaps, particularly about physiotherapy interventions, through educational initiatives is crucial to promote early detection, treatment-seeking behaviour, and preventive measures like pelvic floor exercises. Community-based outreach programs are recommended to enhance PFD management in rural areas.

**Keywords:** Pelvic floor dysfunction, Prevalence, Rural women, Physiotherapy interventions, Urinary incontinence, Pelvic floor muscle.

## INTRODUCTION

Women are the source of life of the universe and women's health is directly proportional to the nation's health and women play a key role in the family. The entire family's health is based on the health of the women. Healthy women give birth to healthy children and healthy children make a healthy nation (1).

One of the health problems of women that affect their quality of life is 'Pelvic floor dysfunction'. Pelvic Floor Dysfunction (PFD) is defined as the presence of any of the symptoms such as 'Urinary Incontinence (UI)', 'Faecal Incontinence (FI)', 'Pelvic

Organ Prolapse (POP)', 'sensory or emptying abnormalities of the lower urinary tract', 'defecation dysfunction', 'sexual dysfunction' and 'chronic pain syndromes', which can present separately or coexist Any factor which weakens the pelvic floor muscle causes dysfunction of these major functions in women. These problems affect women's health very badly and disrupt the quality of life of women as they get older (2).

Pelvic floor dysfunction (PFD) refers to several pelvic floor disorders that include stress incontinence, urgency urinary incontinence, overactive bladder, pelvic

organ prolapses, and fecal or anal incontinence (3). PFD seriously impacts women's physical and mental health (4). It is a common disorder that affects women of all ages. However, there is heightened risk for rural area women because there is a lack of availability and awareness of health care facilities in particular for women. Many of these women find addressing any issue related to the pelvic floor embarrassing and never seek any medical help for the same. Many women are not even aware of the physiotherapy approach to these disorders.

**Need of the study:** Many individuals in rural communities may not be aware of PFD symptoms, risk factors, or available treatments. There is a lack of research about the prevalence of Pelvic Floor Dysfunction in women residing in rural areas. As part of the health care professional team, physiotherapy plays a major role in treating patients with PFD. Also, there is a lack of awareness of physiotherapy in rural areas. This study would help to formulate steps to promote awareness amongst rural women about PFD and early physiotherapeutic interventions for the same.

**Aim:** To find the prevalence of pelvic floor dysfunction in women residing in rural areas.

**Objectives:** To find awareness of physiotherapy interventions among the women residing in rural areas using a self-made questionnaire.

## MATERIALS AND METHOD

**Type of Study:** Observational, cross-sectional study

**Sampling Method:** Convenience sampling

**Study Setting:** The rural community of Vadner village in the district of Chhatrapati Sambhajanagar

**Sample Size:** 100 numbers

**Inclusion Criteria:** All Females in the age 18-70 years

**Exclusion Criteria:** Diagnosed Psychiatric disorders

**Outcome Measure:** Structured Questionnaire

Prior to the commencement of the study, approval of the Institutional Research Board was taken.

Identification of the population based on inclusion and exclusion criteria was done.

Participants were given information about the study and their consent was obtained.

Data sheets were filled after interviewing the participants using a self-made questionnaire.

Data analysis of the responses was conducted and inferences were drawn.

## RESULT

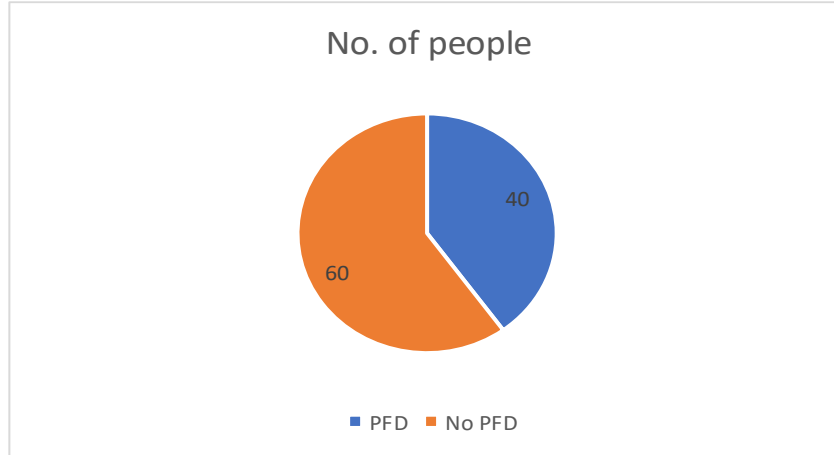
Table 1: Distribution of Demographic variables n=100

Sr. no	Demographic characteristics	Categories	Percentage
1	Age group	18 - 20	17%
		21 - 30	31%
		31 - 40	22%
		41 - 50	16%
		51 - 60	10%
		61 - 70	4%
2.	Marital status	Married	86%
		Unmarried	14%
3.	Living Arrangement	Living with family	100%
		Living alone	0%
4.	Occupation	Farming	85%
		Student	14%
		Teacher	1%
		Any other	0%
5.	Level of education	Primary education	25%
		Secondary education	42%
		No education	33%
6.	Socioeconomic status	Lower class	100%
		Middle class	0%
		Upper class	0%

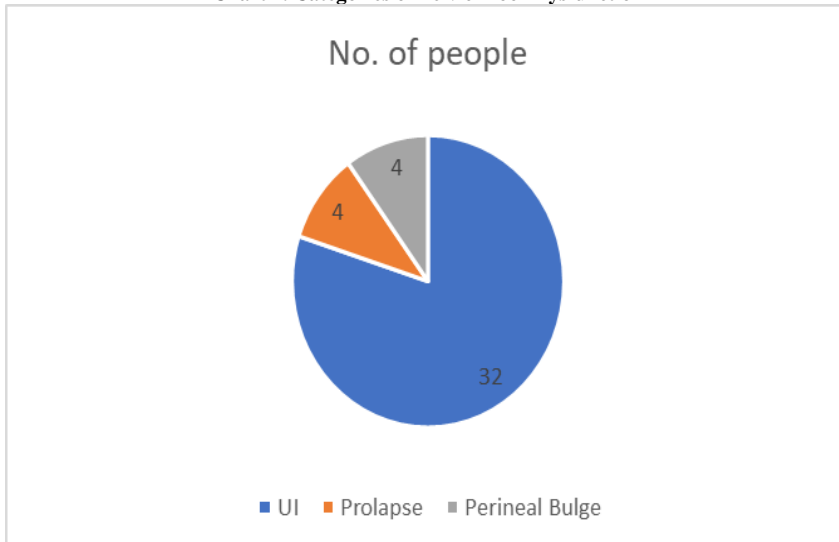
**Table 2: Prevalence And Awareness**

PFD	Prevalence	Awareness of the condition	Treatment taken			PT awareness	PT treatment taken
			Medical	Surgical	None		
UI	32%	28%	20%	21%	59%	0%	0%
Prolapse	4%	4%	0%	4%	96%	0%	0%
Perineal Bulge	4%	4%	3%	6%	91%	0%	0%

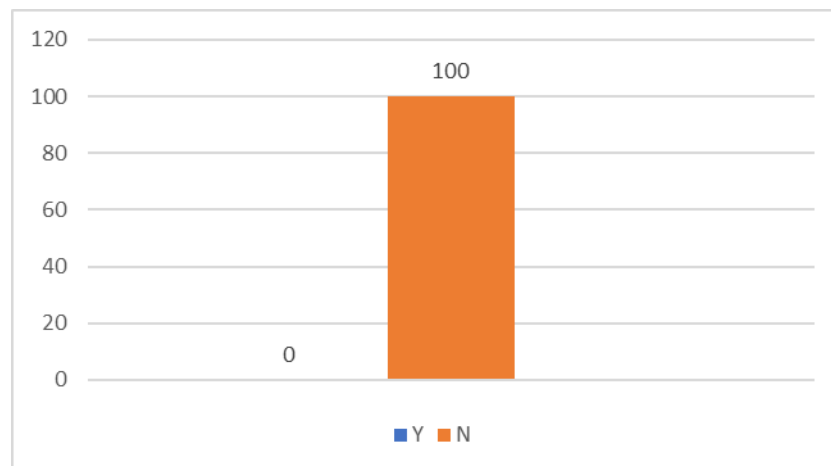
**Chart 1. Prevalence of Pelvic Floor Dysfunction**



**Chart 2. Categories of Pelvic Floor Dysfunction**



**Chart 3. Physiotherapy Treatment Awareness for Pelvic Floor dysfunction, perineal discomfort/bulge, vaginal /anal prolapse**



## DISCUSSION

A significant proportion of participants (60%) were aware of problems related to pelvic floor dysfunction, indicating a reasonable level of awareness within the community. While awareness of medical treatment for PFD was reported among 35% of participants, awareness of physiotherapy treatment was notably lacking, in this current study, the prevalence of pelvic floor dysfunction was reported to be 40% with 32% of the women experiencing urinary incontinence, prolapse, and perineal bulge having the least prevalence rate of 4% each. The study provides valuable insights into the prevalence and awareness of pelvic floor dysfunction (PFD) among individuals in Vadner village in the district of Chhatrapati Sambhajnagar of Maharashtra. The data collected sheds light on various demographic factors and their correlations with PFD. Comparisons with previous epidemiological studies help contextualize the findings within the broader landscape of PFD research. Previous epidemiological studies have shown that pelvic floor dysfunction predominantly affects women and there exists a great deal of variation among the prevalence rates and risk factors for pelvic floor dysfunction quoted in the previous literatures. [1,8]

Demographic and clinical variables among the 100 participants ranged from 18 to 65 years, indicating a diverse age distribution with significant representation across different age brackets. A majority of the participants (86%) were married. All participants were reported to be living with their families, which may reflect cultural or societal norms in the study region. The majority of participants (85%) were engaged in farming, with smaller percentages being students (14%) and teachers (1%). A significant portion of the participants possessed secondary education (42%), with smaller fractions reporting primary education (25%) or no formal education (33%).

All participants fell into the lower socioeconomic class category, indicating

potential socioeconomic disparities in PFD prevalence. A small percentage of participants (5%) reported having comorbidities, primarily hypertension (4%) and hypothyroidism (1%). A minority of participants (5%) reported being on medications, suggesting a relatively healthy population overall. None of the participants were aware of it. A notable percentage of participants (28%) were aware of urinary incontinence, with 32% reporting having experienced it. However, none had sought treatment for it.

A small percentage of participants (4%) reported experiencing discomfort or bulge in the perineal region, with a similar percentage consulting a doctor for it. A minority of participants (4%) reported experiencing vaginal prolapse, with all consulting a doctor for it +and opting for surgical treatment. In most people, PFD is caused due to heavy lifting and bending postures adapted for prolonged periods while working on farms. PFD was observed in older ages as pelvic floor muscle weakness and menopausal ages cause these symptoms.

The study suggests certain modifications and preventive measures, such as adopting appropriate ergonomic practices and emphasizing pelvic floor muscle exercises during and after pregnancy, to mitigate the risk of PFD.

## CONCLUSION

The present study concluded that the prevalence of pelvic floor dysfunction in women residing in rural areas is 40%.

The most common pelvic floor dysfunction in women residing in rural areas is urinary incontinence (UI), affecting 32% of the participants.

The awareness of physiotherapy interventions among women residing in rural areas, as assessed by a self-reported questionnaire, indicates that none of the participants were aware of physiotherapy for pelvic floor dysfunction.

### Declaration by Authors

**Ethical Approval:** Approved

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**Conflict of Interest:** The authors declare no conflict of interest.

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