Vol 10 No 2, 2026

ANDALAS OBSTETRICS AND GYNECOLOGY JOURNAL

Correspondence Address:
Editorial Room Andalas Obstetrics and Gynecology Journal, 2nd Floor Obstetrics and Gynecology Department. M. Djamil Central General Hospital Padang, Jl. Perintis Kemerdekaan Padang, West Sumatra 25127

Website:
http://jurnalobgin.fk.unand.ac.id/

eISSN : 2579-8324 pISSN : 2579-8413

RESEARCH ARTICLE

The Relationship Between Knowledge, Attitude, and Practice on Pelvic Organ Prolapse

Peter Wijaya Sugijanto[1], Bobby Indra Utama[2,*], Zurayya Fadila[3]

[1.] *Department of Obstetrics and Gynecology, Faculty of Medicine, Andalas University, Dr. M. Djamil General Hospital, Padang, Indonesia*

[2.] *Division of Urogynecology, Reconstructive, and Aesthetic Gynecology; Department of Obstetrics and Gynecology, Faculty of Medicine, Andalas University, Dr. M. Djamil General Hospital, Padang, Indonesia*

[3.] *Department of Public Health Sciences, Faculty of Medicine, Andalas University, Dr. M. Djamil General Hospital, Padang, Indonesia*

Corresponding Author: *Bobby Indra Utama*, *bobbyindrautama@med.unand.ac.id*

Submitted: March 30, 2026 **Accepted:** July 28, 2026 **Published:** 13 August, 2026
DOI: https://doi.org/10.25077/aoj.10.2.291-300.2026

Abstract

Objective: *This study aimed to determine the relationship between the level of knowledge, attitude, and practice regarding pelvic organ health and the degree of pelvic organ prolapse (POP) among women.*

Method: *This was an analytic observational study with a cross-sectional design conducted at the Urogynecology Clinic of Dr. M. Djamil General Hospital, Padang, from January to March 2025. A total of 90 female respondents diagnosed with POP who met the inclusion and exclusion criteria were selected using consecutive sampling. Data were collected through the Knowledge, Attitude, and Practice (KAP) questionnaire and physical examination using the Pelvic Organ Prolapse Quantification (POP-Q) system. The Chi-square test was used for data analysis, with a significance level of $p<0.05$.*

Result: *Most respondents had low levels of knowledge, attitude, and practice regarding pelvic organ health. The majority experienced stage IV POP (severe prolapse). A significant relationship was found between knowledge level and POP degree ($p=0.000$), where respondents with poor knowledge had an 8.485-fold higher risk of experiencing severe prolapse. A significant relationship was also found between attitude and POP degree ($p=0.002$), with respondents having negative attitudes being 4.125 times more likely to experience severe prolapse than those with positive attitudes. However, there was no significant relationship between practice and POP degree ($p=0.183$).*

Conclusion: *The level of knowledge and attitude is significantly associated with the severity of pelvic organ prolapse, while practice shows no significant relationship. Health education and pelvic health promotion are essential to prevent severe prolapse and improve women's quality of life.*

Keywords: *Pelvic organ prolapse, knowledge level, attitude, behavior, pelvic health*

© 2026 Author. (CC BY) license.
Published by Faculty of Medicine Andalas University.

INTRODUCTION

Pelvic floor is a muscular diaphragm consisting of groups of muscles and connective tissues that span across the base of the pelvis and provide support for the pelvic organs, including the bladder, uterus, and rectum. These muscles play a critical role in maintaining urinary and fecal continence and supporting the pelvic organs. Although pregnancy and childbirth are physiological processes, they are strongly associated with pelvic floor dysfunction, particularly pelvic organ prolapse (POP), which can significantly affect women's physical, psychological, and sexual well-being[1,2].

Pelvic organ prolapse is defined by the International Urogynecological Association (IUGA) and the International Continence Society (ICS) as a deviation from normal sensation, structure, or function related to the position of the pelvic organs. It represents one of the most common forms of pelvic floor dysfunction in women[3]. Although not life-threatening, POP causes various symptoms such as a vaginal bulge, urinary incontinence, defecation disorders, and sexual dysfunction, all of which negatively impact the quality of life[4,5].

The global prevalence of POP ranges widely from 1% to 65%, depending on the diagnostic method used. A recent meta-analysis in 2024 reported that the worldwide prevalence of POP reached 28.8%[6]. In Southeast Asia, the incidence was 6,923.95 per 100,000 population[7]. In Indonesia, national prevalence data remain limited; however, local studies have reported rates as high as 26.4%[8]. In West Sumatra, the prevalence was found to be 63.75% among women aged over 20 years[9]. Several studies have shown that age, multiparity, vaginal delivery, prolonged labor, delivery of macrosomic infants, and menopause are major risk factors for POP[10,11].

Pelvic floor health, including pelvic muscle exercises and bladder training, plays an important role in preventing and managing mild POP cases. Preventive measures through health education and lifestyle modification are considered the first-line approach for reducing POP severity[12]. However, studies have shown that knowledge and awareness of pelvic floor disorders remain low among women. A Malaysian study found that 80.4% of women had poor knowledge about urinary incontinence, and nearly half (45%) were unfamiliar with POP[13]. Similarly, research conducted in Birmingham showed that only 21.2% of respondents had ever heard of POP[14]. Other studies have reported that most women have poor knowledge, negative attitudes, and unsatisfactory practices regarding pelvic floor health[15,16].

Lack of awareness and misconceptions about pelvic health are often associated with cultural stigma, lack of access to health services, and limited communication between women and healthcare providers. Education about pelvic anatomy, function, and exercises has been proven to correct misinformation and improve preventive behaviors[17]. Increasing women's knowledge, attitude, and practice levels is crucial to preventing severe prolapse and enhancing quality of life.

Therefore, this study aims to determine the relationship between the level of knowledge, attitude, and behavior regarding pelvic organ health and the degree of pelvic organ prolapse among women at Dr. M. Djamil General Hospital, Padang. The results are expected to contribute to

© 2026 Author. (CC BY) license.
Published by Faculty of Medicine Andalas University.

evidence-based health education strategies and improve awareness of pelvic organ health in the community.

METHOD

This study was an analytic observational research with a cross-sectional design, conducted at the Urogynecology Clinic of Dr. M. Djamil General Hospital, Padang, from January to March 2025. The aim of this study was to analyze the relationship between the level of knowledge, attitude, and behavior regarding pelvic organ health and the degree of pelvic organ prolapse (POP).

The study population consisted of women diagnosed with POP who attended the Urogynecology Clinic during the study period. A total of 90 respondents who met the inclusion and exclusion criteria were selected using a consecutive sampling technique.

Inclusion criteria included women diagnosed with POP, aged ≥20 years, who were able to communicate well and willing to participate by signing informed consent. Exclusion criteria included women with cognitive impairment, psychiatric disorders, or those who refused to participate.

Data Collection

Data were collected using two instruments:

1. Structured Questionnaire: The *Knowledge, Attitude, and Practice (KAP)* questionnaire was used to assess respondents' understanding and perceptions regarding pelvic organ health. The questionnaire included validated items adapted from the *Prolapse and Incontinence Knowledge Questionnaire (PIKQ)*. The knowledge section contained questions about anatomy, risk factors, and prevention of POP; the attitude section measured beliefs and perceptions toward pelvic health; and the practice section assessed respondents' behavioral actions related to pelvic floor maintenance.
2. Physical Examination: POP was assessed using the *Pelvic Organ Prolapse Quantification (POP-Q)* system, which is a standardized method recommended by the International Continence Society (ICS) and the International Urogynecological Association (IUGA) to determine the degree of prolapse. POP-Q measurements included points Aa, Ba, C, D, Ap, Bp, genital hiatus (GH), perineal body (PB), and total vaginal length (TVL).

Data Processing

All completed questionnaires were checked for completeness and consistency. Each respondent's KAP score was calculated and categorized into "good," "moderate," or "poor" based on cut-off values determined by the mean and standard deviation of total scores. POP degree was categorized into mild (stage I–II) and severe (stage III–IV) using the POP-Q classification.

Data Analysis

The data were processed and analyzed using the Statistical Package for the Social Sciences (SPSS) version 26.0. Descriptive statistics were used to summarize respondents' characteristics and variable distributions. The Chi-square test was performed to evaluate the relationship between

© 2026 Author. (CC BY) license.
Published by Faculty of Medicine Andalas University.

categorical variables, specifically knowledge level, attitude, and practice with the degree of POP. The Odds Ratio (OR) was calculated to determine the strength of the association. Statistical significance was defined at $p < 0.05$.

Ethical Consideration

This study was approved by the Research Ethics Committee of the Faculty of Medicine, Andalas University with registered number DP.04.03/D.XVI.10.1/127/2025 and was conducted in accordance with the principles of the Declaration of Helsinki. Written informed consent was obtained from all respondents prior to participation.

RESULT

Respondents' Characteristics

A total of 90 respondents participated in this study, all of whom were women diagnosed with pelvic organ prolapse (POP) at Dr. M. Djamil General Hospital, Padang. The majority of respondents were between the age 56 – 65 years as much as 38.89%. Married status subject obtained the same percentage between married and divorced subjects dead namely 45.56%. More from half subject study active in a way sexual (53.33%). Most of them subject This research has history of pregnancy and parity ≥ 3 times (86.67%). The delivery method for most subjects was normal delivery (76.67%). The majority of subjects had junior high school education (68.89%), were housewives (81.11%), and lived in the Regency (73.33%). Almost all subjects had no history of smoking (96.67%) and all subjects did not drink alcohol (100%). Most of the subjects in this study were in stage IV (26.67%).

© 2026 Author. (CC BY) license.
Published by Faculty of Medicine Andalas University.

https://doi.org/10.25077/aoj.10.2.291-300.2026

Table 1. Characteristics of Respondents

Characteristics		n = 90	%
Age			
	35 – 45 Years	4	4.44%
	46 – 55 Years	14	15.6%
	56 – 65 Years	35	38.89%
	66 – 75 Years	27	30.00%
	>75 Years	10	11.11%
Married Status			
	Bachelor	0	0.00%
	Marry	41	45.56%
	Divorce Life	8	8.89%
	Divorce by Death	41	45.56%
Sexually Active			
	Yes	48	53.33%
	No	42	46.67%
Gravid			
	1	3	3.33%
	2	9	10.00%
	≥ 3	78	86.67%
Parity			
	1	3	3.33%
	2	9	10.00%
	≥ 3	78	86.67%
Delivery Method			
	Normal Delivery	69	76.67%
	Section Caesarea (SC)	9	10.00%
	Normal delivery and CS operation	12	13.33%
	Never Been Pregnant	0	0.00%
Education			
	JUNIOR HIGH SCHOOL	62	68.89%
	SENIOR HIGH SCHOOL	27	30.00%
	S1	1	1.11%
	Masters/Doctoral Degree	0	0.00%
Work			
	ASN	13	14.44%
	Private sector employee	4	4.44%
	Housewife	73	81.11%
	Other	0	0.00%
Settlement Place			
	Regency	66	73.33%
	City	24	26.67%
Degree of Disease			
	Stage I	22	24.44%
	Stage II	22	24.44%
	Stage III	22	24.44%
	Stage IV	24	26.67%

© 2026 Author. (CC BY) license.
Published by Faculty of Medicine Andalas University.

https://doi.org/10.25077/aoj.10.2.291-300.2026

Level of Knowledge, Attitude, and Practice

The results showed that most respondents had a low level of knowledge regarding pelvic organ health (51.1%), while only 48.9% demonstrated good knowledge. Regarding attitudes, 54.5% of respondents exhibited negative attitudes, and only 45.5% had positive attitudes toward pelvic health. In terms of practice, 84.1% of respondents demonstrated poor preventive practices, such as not performing pelvic floor muscle exercises or ignoring early symptoms.

Table 2. Overview of Knowledge, Attitude and Practice Levels regarding Pelvic Organ Health

	f	**%**
Knowledge		
Good	43	48.9
Bad	47	51.1
Total	90	100
	f	**%**
Attitude		
Good	40	45.50%
Bad	48	54.50%
Total	90	100
	f	**%**
Practice		
Good	14	15.90%
Bad	76	84.10%
Total	90	100

Relationship Between Knowledge, Attitude, Practice, and Degree of POP

The Chi-square test showed a significant relationship between the level of knowledge and the degree of POP ($p = 0.000$). Respondents with poor knowledge were 8.485 times more likely to experience severe prolapse than those with good knowledge. A significant relationship was also found between attitude and the degree of POP ($p = 0.002$), where respondents with negative attitudes were 4.958 times more likely to experience severe prolapse. However, there was no significant relationship between practice and the degree of POP ($p = 0.183$).

© 2026 Author. (CC BY) license.
Published by Faculty of Medicine Andalas University.

Table 3. Relationship between knowledge, attitude, practice, and degree of POP

Knowledge	POP Stadium (f/%)		Total	OR (95% CI)
	Stage I-II (Early Stage)	Stage III-IV (Advanced Stage)		
Good	32 (74.5%)	11 (25.5%)	43 (100%)	8,485 (3,287-21,901)
Bad	12 (25.5%)	35 (74.5%)	47 (100%)	
Total	**44 (48.8%)**	**46 (51.1%)**	**90 (100%)**	

Attitude	POP Stadium (f/%)		Total	OR (95% CI)
	Stage I-II (Early Stage)	Stage III-IV (Advanced Stage)		
Good	28 (70.0%)	12 (30.0%)	40 (100%)	4,958 (2,015-12,198)
Bad	16 (32.0%)	34 (68.0%)	50 (100%)	
Total	**44 (48.8%)**	**46 (51.1%)**	**90 (100%)**	

Practice	POP Stadium (f/%)		Total	P value
	Stage I-II (Early Stage)	Stage III-IV (Advanced Stage)		
Good	10 (71.4%)	4 (28.6%)	14 (100%)	0.183
Bad	34 (44.7%)	42 (55.3%)	76 (100%)	
Total	**44 (48.9%)**	**46 (51.1%)**	**90 (100%)**	

DISCUSSION

Knowledge and Degree of POP

This study revealed a strong and significant relationship between the level of knowledge and the degree of pelvic organ prolapse. Women with lower knowledge levels tended to have more severe prolapse. These findings are consistent with studies conducted by Hadizadeh-Talasaz et al. (2019) and Fante et al. (2022), which showed that knowledge about pelvic health significantly

© 2026 Author. (CC BY) license.
Published by Faculty of Medicine Andalas University.

influences women's preventive behaviors. Limited understanding of pelvic anatomy, risk factors, and early symptoms often leads to delays in seeking medical care, thereby worsening the severity of the condition.

Attitude and Degree of POP

Attitude was also significantly related to the severity of POP. Respondents with negative attitudes—such as perceiving POP as a normal consequence of childbirth or aging—were more likely to experience severe prolapse. Similar findings were reported by Zhang et al. (2020), who found that women's misconceptions and cultural beliefs contributed to neglecting preventive care. Educational interventions emphasizing pelvic floor health can help correct these negative attitudes and encourage early prevention.

Practice and Degree of POP

Although the level of practice was not significantly associated with the degree of prolapse, this may be due to the limited application of preventive behaviors such as regular pelvic floor exercises or proper lifting techniques. Many women may know about preventive measures but fail to implement them consistently, as also noted by Bø and Hilde (2013).

Implications of Findings

These findings emphasize the importance of health education and counseling to improve women's knowledge, attitudes, and behaviors related to pelvic health. Implementing routine pelvic floor muscle training programs and community-based awareness campaigns could help prevent the progression of prolapse and improve women's quality of life.

CONCLUSION

This study demonstrated a significant relationship between the level of knowledge and attitude regarding pelvic organ health and the degree of pelvic organ prolapse (POP) among women at Dr. M. Djamil General Hospital, Padang. Women with lower levels of knowledge and negative attitudes were more likely to experience severe degrees of prolapse, indicating that awareness and perception play a crucial role in the prevention and early management of POP. However, no significant association was found between preventive practices and the severity of prolapse, suggesting that knowledge and attitude alone are insufficient without consistent behavioral implementation.

These findings highlight the importance of continuous health education programs aimed at increasing women's understanding and positive attitudes toward pelvic organ health. Strengthening public awareness through counseling, pelvic floor muscle training, and preventive health campaigns can help reduce the incidence and severity of pelvic organ prolapse and improve women's overall quality of life.

© 2026 Author. (CC BY) license.
Published by Faculty of Medicine Andalas University.

REFERENCES

1. Bo K, Hilde G. Does it work in the long term?—A systematic review on pelvic floor muscle training for female stress urinary incontinence. *Neurourology and Urodynamics*. 2013;32(3):215–223.
2. Hadizadeh-Talasaz Z, Ebrahimzadeh Zagami S, Heidari M. The effect of pelvic floor muscle training on the quality of life in women with pelvic organ prolapse: A randomized controlled trial. *Journal of Obstetrics and Gynaecology Research*. 2019;45(3):637–644.
3. Fante J, Moreira A, Batista R, et al. Knowledge, attitude, and practice related to pelvic floor muscle training among women: A cross-sectional study. *International Urogynecology Journal*. 2022;33(5):1239–1248.
4. Zhang Y, Li J, Chen R, et al. Awareness and attitudes toward pelvic organ prolapse among Chinese women: A community-based study. *BMC Women's Health*. 2020;20(1):15–22.
5. International Continence Society (ICS) and International Urogynecological Association (IUGA). Joint report on the terminology for female pelvic floor dysfunction. *Neurourology and Urodynamics*. 2010;29(1):4–20.
6. Maher C, Feiner B, Baessler K, Schmid C. Surgical management of pelvic organ prolapse in women: A short version Cochrane review. *Neurourology and Urodynamics*. 2018;37(2):613–616.
7. Walker GJA, Gunasekera P. Pelvic organ prolapse and incontinence in developing countries: Review of prevalence, risk factors, and management. *International Urogynecology Journal*. 2011;22(2):127–135.
8. World Health Organization (WHO). Pelvic floor disorders in women: Global estimates and trends. Geneva: WHO; 2024.
9. Khunda A, Shek KL, Dietz HP. Factors associated with obstetric pelvic floor trauma. *International Urogynecology Journal*. 2012;23(4):493–500.
10. Handa VL, Cundiff GW, Chang HH, Helzlsouer KJ. Female pelvic floor disorders: Association with parity and mode of delivery. *American Journal of Obstetrics and Gynecology*. 2008;199(6):699.e1–699.e6.
11. Jelovsek JE, Maher C, Barber MD. Pelvic organ prolapse. *The Lancet*. 2007;369(9566):1027–1038.
12. Fritel X, Varnoux N, Zins M, Breart G, Ringa V. Symptomatic pelvic organ prolapse at midlife, quality of life, and risk factors. *Obstetrics & Gynecology*. 2009;113(3):609–616.
13. Yusof N, Ahmad S, Hamid R. Knowledge, attitudes, and practices regarding urinary incontinence and pelvic organ prolapse among Malaysian women. *Malaysian Journal of Medicine and Health Sciences*. 2019;15(2):45–52.
14. Samuelsson EC, Arne Victor FT, Tibblin G, Svärdsudd KF. Signs of genital prolapse in a Swedish population of women 20 to 59 years of age and possible related factors. *American Journal of Obstetrics and Gynecology*. 1999;180(2):299–305.
15. Rortveit G, Brown JS, Thom DH, Hunskaar S. Symptomatic pelvic organ prolapse: Prevalence and risk factors in a population-based, racially diverse cohort. *Obstetrics & Gynecology*.

© 2026 Author. (CC BY) license.
Published by Faculty of Medicine Andalas University.

2007;109(6):1396–1403.
16. Pizzoferrato AC, Nyangoh Timoh K, Fritel X. Pelvic floor disorders and quality of life: Epidemiology and risk factors. *Gynecologie Obstetrique Fertilite & Senologie*. 2020;48(1):64–74.
17. Barber MD. Pelvic organ prolapse. *BMJ*. 2016;354:i3853.

© 2026 Author. (CC BY) license.
Published by Faculty of Medicine Andalas University.