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# Awareness Regarding Pelvic Floor Muscle Weakness in Women: A Survey

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**ABSTRACT**

**Background**: Pelvic floor muscle weakness is associated with urinary incontinence, pelvic organ prolapse, fecal incontinence, and sexual dysfunction, yet awareness among women remains limited.
**Aim**: This study aimed to assess awareness regarding pelvic floor muscle weakness among women, identify common misconceptions, and determine awareness of pelvic floor muscle training (PFMT).
**Methods**: A quantitative survey was conducted among 100 women above 18 years of age in Greater Noida using a questionnaire adapted from Neels et al.
**Results**: Awareness was generally low, especially among younger women. Misconceptions about urine leakage were common, and fewer than half of the participants were aware of PFMT, although willingness to learn was high.
**Conclusion**: Women had inadequate awareness of pelvic floor muscle weakness and its management. Educational programs in community, hospital, and academic settings are needed to improve awareness and early intervention.

**KEYWORDS:** pelvic floor, prolapse, strengthning

## INTRODUCTION

The pelvic floor is a complicated group of muscles, ligaments, fascia, and connective tissue that supports the bladder, uterus, and rectum. It also helps with urinary and fecal continence, sexual function, and keeping the body stable[1]. When these structures weaken or become damaged, pelvic floor dysfunctions(PFDs) such as urinary incontinence (UI), fecal incontinence (FI), pelvic organ prolapse (POP), and sexual dysfunction become a major and growing public health problem around the world.When these structures weaken or become damaged, pelvic floor dysfunctions(PFDs) such as urinary incontinence (UI), fecal incontinence (FI), pelvic organ prolapse (POP), and sexual dysfunction become a major and growing public health problem around the world[2]. Pelvic organ prolapse affects millions of women around the world. In 2021, the age-standardized prevalence rate was 2,769 per 100,000 women. By 2036, when the population is expected to be older, about 156 million women will be affected. Even though this is a very common problem, only 18–50% of women with pelvic floor issues seek medical help. This is mostly because they don't know enough about their condition, have the wrong ideas about it, or can't get to a doctor[2]. Pelvic organ prolapse affects millions of women around the world. In 2021, the age-standardized prevalence rate was 2,769 per 100,000 women. By 2036, when the population is expected to be older, about 156 million women will be affected. Even though this is a very common problem, only 18–50% of women with pelvic floor issues seek medical help. This is mostly because they don't know enough about their condition, have the wrong ideas about it, or can't get to a doctor[3].

A fundamental challenge contributing to this treatment gap is the consistently inadequate awareness and understanding that women have regarding their pelvic floor anatomy, functionality, and related dysfunctions. A systematic review of 19 studies involving 11,512 women revealed that awareness of

pelvic floor disorders, including urinary incontinence, fecal incontinence, and pelvic organ prolapse, was consistently low to moderate across various populations. The review found that the most important risk factors for having poor pelvic floor knowledge were being African-American, not having a lot of education, not being able to get information easily, and not having a lot of money. The review found that most women don't know what treatment options they have or what the risk factors are for these disorders. This is a big problem because it makes them less likely to seek care and stick with their treatment[4].

These knowledge gaps have direct clinical ramifications. Pelvic floor muscle training (PFMT) is widely known as the best way to prevent and treat PFDs, but many women who need it don't know about it or do it. Women who don't know much about the pelvic floor are less likely to do PFMT during and after pregnancy, and they often don't realize that there is help available for pelvic floor problems[5]. The problem runs deeper than simply not knowing enough. When women carry beliefs often passed down through generations that leaking urine after childbirth is just "part of being a mother," or that a prolapsing bladder is simply what happens when you get older, they stop looking for answers. These beliefs feel like common sense, but they quietly close the door on care that could genuinely change a woman's daily life. A woman who believes her symptoms are normal will not bring them up at a doctor's appointment. She will quietly adjust wearing pads, avoiding long walks, skipping social events and assume this is simply her new reality. This cycle of silent suffering, normalized by misinformation, is one of the most significant barriers standing between women and effective pelvic floor care.

What makes this particularly important today is that the way we approach pelvic floor conditions, especially pelvic organ prolapse, has shifted considerably in recent years. Clinicians and researchers have moved away from a one-size-fits-all, procedure-first mentality toward something far more personal. Current evidence calls for shared decision-making, where the woman's own goals, concerns, and quality of life sit at the center of every clinical conversation rather than at the edges of it. Treatment success is no longer measured purely by anatomy on an examination table; it is measured by whether a woman feels better, functions better, and lives better. But this kind of partnership between a patient and her healthcare provider can only work when the patient walks into that room with some understanding of what is happening in her own body. A woman who has never heard of her pelvic floor muscles cannot advocate for herself. A woman who believes her condition is untreatable will not ask for treatment.

This is precisely why understanding how aware women actually are or are not matters so much right now. We have accumulated strong evidence that the knowledge gap is real, that it is widespread, and that it cuts across age groups, educational backgrounds, and cultures. What we need to understand more clearly is how deep that gap runs in specific communities, what forms it takes, and which women are most at risk of falling through without ever receiving the education or care they need. The present study sets out to do exactly that: to sit with women, ask them directly what they know and believe about their pelvic floor, and use those answers to paint a clearer picture of where awareness stands today. The ultimate goal is not simply to describe the problem, but to generate the kind of practical, grounded evidence that can help educators, physiotherapists, and healthcare systems build better bridges between women and the pelvic floor health information they deserve[5, 6].

## REVIEW OF LITERATURE

1. In their 2026 cross-sectional study, Alagil et al. evaluated the awareness of pelvic floor muscle (PFM) exercises and pelvic floor dysfunction (PFD) among 76 female Saudi athletes aged 18–40 years. People didn't know much overall. They did okay on urinary incontinence, but not so well on pelvic organ prolapse, and they didn't know much about PFM anatomy at all. Athletes engaged in resistance training or weightlifting exhibited superior knowledge of pelvic floor anatomy relative to those participating in aerobic sports. There was no clear link between knowledge and things like age, how long someone has been training, or how often they train. The authors determined that this group lacks sufficient awareness of pelvic floor health and underscored the necessity for organized education within sports training programs[1].

2. Kara et al. (2025) examined the potential advantages of integrating vaginal spheres (VS) with pelvic floor muscle training (PFMT) compared to PFMT alone. In this 6-week pilot randomised controlled trial, 26 women were evaluated for pelvic muscle strength, sexual function, and urinary symptoms. Both groups exhibited significant enhancements, including increased muscle strength, enhanced sexual function, and diminished urinary incontinence. Nonetheless, a comparison of the two groups revealed no statistically significant differences. This indicates that although both methods are advantageous, the incorporation of vaginal spheres did not exhibit a distinct superiority over PFMT alone in this study. The authors concluded that the combined approach is safe and practical, but they stressed the need for larger studies to find out if vaginal spheres offer any extra clinical benefit[2].
3. Fedorchenko and Usen (2025) wrote an article about pelvic floor dysfunction (PFD) and how to fix it at different points in a woman's life. They looked at existing research to see how PFD affects younger, middle-aged, and older women. They also talked about important risk factors like trauma during childbirth and changes in hormones. The results indicated that younger women are more adversely affected by pregnancy-related trauma, whereas older women suffer more significantly from muscle atrophy and decreased oestrogen levels. Even though there are these differences, pelvic floor muscle training is still the best conservative treatment. The authors stressed that rehabilitation should not be one-size-fits-all, but should instead be tailored to the needs of each age group and lifestyle in order to improve women's quality of life and ensure better long-term functional outcomes throughout their lives[3].
4. Zhao et al. (2025) examined alterations in pelvic floor support in primiparous women post-vaginal delivery utilising MRI. They tracked 200 first-time mothers and found pelvic organ prolapse (POP) in 41.5% of them six weeks after giving birth. They checked again four months later. Women with single-compartment involvement exhibited no significant changes over time. Conversely, individuals with multiple-compartment involvement exhibited significant enhancements in organ positioning and pelvic muscle functionality. The results indicate that levator ani muscle dysfunction is a significant factor in postpartum pelvic organ prolapse (POP). Significantly, the study noted that instances with multiple compartments may exhibit natural recovery in the early postpartum period, underscoring the possibility of spontaneous enhancement in pelvic floor support following childbirth[4].
5. Lippki et al. (2025) investigated rectocele, a condition characterised by the protrusion of the rectum into the vagina, emphasising its aetiology, diagnosis, and treatment. It looked at symptoms like not being able to poop and not being able to empty completely, as well as tools like ultrasound and dynamic MRI that could help make an accurate diagnosis. The authors emphasised that treatment should extend beyond structural repair and primarily focus on alleviating functional problems such as dyschezia. They also talked about how important it is to use a multidisciplinary approach and make sure the diagnosis is correct. The choice of surgical options, such as vaginal native tissue repair and laparoscopic ventrorectopexy, should depend on the particular defect and the needs of the patient. The study stressed the importance of personalised treatment for better symptoms and a better quality of life[5].
6. Stamos et al. (2025) examined the effects of pelvic floor muscle training (PFMT) on various dimensions of female sexual health. By analyzing existing studies, they explored its effects on desire, arousal, and orgasm. The findings showed that regular PFMT can improve sexual satisfaction by enhancing blood flow and strengthening muscle tone, which supports better arousal and orgasmic response. The review also showed that these benefits are bigger when exercises are done with the right instruction and guidance. In general, the authors decided that PFMT is a safe, non-invasive, and effective way to help women improve their sexual health and overall quality of life[6].
7. The research conducted by Danesh Shahraki et al. (2025) investigated the impact of the delivery method on pelvic floor health six months postpartum. In this case-control study, 260 first-time mothers were compared: those who had an uncomplicated cesarean section and those who underwent vaginal delivery with episiotomy. The results indicated that women in the cesarean group exhibited superior outcomes, including enhanced pelvic floor muscle strength, elevated vaginal pressure, and a reduction

in dysfunction symptoms. Conversely, the vaginal delivery with episiotomy cohort reported a greater incidence of complications associated with pelvic floor weakness. The authors determined that this modality of vaginal delivery correlates with an elevated risk of muscular injury, potentially resulting in pelvic floor dysfunction over time[7].

8. The research conducted by Mudalige et al. (2025) provided a comprehensive analysis of pelvic organ prolapse (POP) and its effects on women's health. The authors conducted a comprehensive meta-analysis of international studies to assess the prevalence of pelvic organ prolapse (POP) and to identify significant risk factors, such as aging and childbirth. They discovered that POP is a prevalent condition that considerably impacts both physical health and emotional well-being. But it often doesn't get reported enough because of social stigma and lack of knowledge. The authors stressed that the number of people with POP is likely to go up as the world's population gets older. They came to the conclusion that women's long-term health and overall quality of life would be better if there were better screening, more public awareness, and easier access to specialized care[8].
9. In the review "Pelvic Organ Prolapse: Current Challenges and Future Perspectives" by Anna Padoa et al., the authors highlight a necessary shift toward patient-centered care for pelvic organ prolapse (POP). Despite its high prevalence, many women fail to seek treatment due to knowledge deficits and barriers to healthcare. The authors advocate for defining success through Patient-Reported Outcomes (PROs) and the relief of bothersome symptoms rather than anatomical perfection. Management options range from watchful waiting for asymptomatic women to non-surgical vaginal pessaries, which show high efficacy. For those requiring surgery, Native Tissue Repair (NTR) is the preferred first-line treatment, while mesh-augmented repairs and sacrocolpopexy are reserved for specific recurrent or high-risk scenarios. Ultimately, personalized strategies that prioritize the patient's functional goals and quality of life are crucial for therapeutic success[9].
10. The case report by Zhang et al. (2025) described the diagnosis and treatment of a high-grade rectocele in a 60-year-old woman with long-standing constipation and a persistent feeling of incomplete emptying. Defecography revealed a Grade III rectocele, characterized by a significant protrusion of the rectal wall into the vagina, resulting in obstructed defecation syndrome. After conservative treatments didn't work, she had transvaginal repair to make the wall stronger. The result was very good, with a lot of relief from symptoms and more comfort in daily life. The authors determined that in instances with evident anatomical anomalies, focused surgical intervention can be extremely efficacious, aiding patients in regaining normal function and markedly enhancing their quality of life[10].
11. Husna Asri Pratiwi's (2025) review looked at how pelvic floor exercises, especially Kegel exercises, can help postpartum women avoid and deal with urinary incontinence. It looked at the connection between regular exercise and fewer symptoms by looking at a number of studies. The results indicated that pregnancy and childbirth frequently compromise pelvic floor muscles, resulting in involuntary leakage. But women who did these exercises regularly saw a clear decrease in both the number and severity of their symptoms. The study stressed that Kegel exercises are easy to do, don't hurt, and work. It came to the conclusion that they should be a main part of postpartum care because they help women regain control of their bladders, feel better physically, and feel more confident in everyday life[11].
12. Elliott et al. (2025) conducted a study examining the impact of physical activity on pelvic organ prolapse (POP). It looked at a variety of activities, from everyday tasks to high-impact sports, and how they affect pelvic floor support. The results showed a "U-shaped" relationship: moderate activity helps keep muscles strong, but not being active or doing heavy or high-impact activities too often may raise the risk of prolapse. The authors also said that women are often told not to exercise at all, which can be bad for their health in general. They pointed out that there wasn't enough clear, evidence-based advice. The study concluded that subsequent research should concentrate on discovering safe, pelvic-friendly exercise methodologies to assist women in maintaining physical activity while safeguarding pelvic health[12].

13. The research conducted by González-Timoneda et al. (2025) examined the enduring effects of childbirth on pelvic health in women 5–10 years post their initial delivery. It comprised 521 participants, evaluating outcomes between individuals who experienced vaginal births and those who underwent cesarean sections. The results indicated that women with a history of vaginal delivery exhibited an elevated risk of urinary incontinence and pelvic organ prolapse. Over time, these conditions were shown to have a big impact on their quality of life. Conversely, women in the cesarean group reported fewer such issues. The authors determined that childbirth, especially vaginal delivery, constitutes a significant risk factor for long-term pelvic floor dysfunction, highlighting the necessity of early screening and specialized postpartum care to enhance women's health and well-being[13].
14. In his 2025 review, Zumrutbas looked at pelvic organ prolapse (POP), which happens when pelvic organs fall into the vaginal canal because the support is not strong enough. He said it was a condition caused by many things, including genetics, hormonal changes, having a baby, lifestyle choices, and getting older. The prevalence is rising, particularly among older women, with disparities observed across populations. Pelvic organ prolapse (POP) often happens with urinary incontinence, sexual dysfunction, and pelvic pain, which makes life harder. For diagnosis, doctors take a detailed history, do a physical exam, and use imaging tests like an ultrasound or MRI. The POP-Q system is widely used to stage the disease. The author determined that management ought to be personalised and comprehensive, tackling both structural and functional symptoms, while underscoring the necessity for continuous research into preventive measures and enhanced treatment methodologies[14].
15. In their 2025 study, Bahar et al. evaluated awareness, knowledge, and beliefs regarding the pelvic floor and pelvic floor muscle training (PFMT) among 250 pregnant women between 5 and 40 weeks of gestation. The findings indicated that a majority of participants possessed minimal knowledge—70.4% had never encountered pelvic floor muscles, 95.2% had not received any information, and 90.8% were unaware of their function. Almost half thought it was normal to have urinary incontinence while pregnant, and 98% said they didn't know enough about it. There were no big differences between the trimesters. The authors determined that awareness and knowledge are insufficient, underscoring the necessity for healthcare professionals to deliver regular education and advocate for PFMT during pregnancy[15].
16. Pawlik et al. examined pelvic floor dysfunctions (PFD) in female athletes in their 2025 review, addressing urinary incontinence, anorectal complications, pelvic organ prolapse, sexual dysfunction, and pelvic pain. They discovered that urinary incontinence occurs approximately three times more frequently in athletes, particularly in high-impact sports. Anorectal issues occurred more frequently during endurance and high-intensity activities, whereas evidence regarding prolapse remained ambiguous. Sexual dysfunction, especially dyspareunia, was frequently reported but remains poorly understood. Even though this was the case, athletes didn't know much about it, which led to underreporting and delayed care. The authors determined that enhanced education and pelvic floor muscle training are crucial, and underscored the necessity for extensive research to advocate for holistic care for female athletes[16].
17. Loukopoulou et al. (2025) looked at uterine prolapse in women at different points in their lives. They looked at how common it is, what causes it, and how to treat it. Uterine prolapse happens when the uterus falls into or through the vaginal canal because the support structures are weak. The authors pinpointed significant risk factors, such as multiple childbirths, obesity, chronic straining, and diminished estrogen levels during menopause. Many women have symptoms like pelvic pressure and pain, but they don't always get help right away because they are embarrassed or don't know what to do. The research stressed the importance of finding problems early and getting treatment right away. It came to the conclusion that good management should include screening, changes to one's lifestyle, and specialized care, with a strong emphasis on education and personalized treatment to improve long-term health and daily comfort[17].
18. In their 2024 systematic review and meta-analysis, Rodriguez-Longobardo et al. evaluated the efficacy of pelvic floor muscle training (PFMT) in young, nulliparous female athletes. They looked through

PubMed, Sport Discus, and Web of Science and found eight studies for qualitative review and six studies for meta-analysis. The results indicated that PFMT substantially enhanced the maximal voluntary contraction of pelvic floor muscles and diminished urinary leakage. But it didn't make a big difference in the resting pressure in the vagina. In general, the results show that PFMT works to strengthen pelvic muscles and stop leaks. The authors determined that PFMT is an effective method for both the prevention and management of pelvic floor dysfunction in female athletes[18].

19. The research conducted by Gao et al. (2024) investigated the determinants of pelvic floor dysfunction (PFD) one month postpartum in a cohort of 845 women. Through clinical examinations and electromyography, it discerned significant predictors of muscle weakness and organ displacement. Vaginal delivery was correlated with increased urinary incontinence, whereas caesarean section was associated with atypical resting muscle strength. Lifestyle factors, including gestational constipation and significant weight gain, heightened risk. Vaginal inflammation had a negative impact on fast-twitch muscle fibres that are crucial for maintaining continence. The authors determined that while certain risks are inevitable, numerous are subject to modification. They stressed the importance of comprehensive prenatal care, which includes managing diet, maintaining a healthy weight, and treating inflammation early to help with recovery and improve quality of life after giving birth[19].
20. The review article "Unveiling the depths of pelvic organ prolapse: From risk factors to therapeutic methods" by Jiaxin Gao, Yi Li, Junyi Hou, and Yirong Wang explores pelvic organ prolapse (POP), a condition where pelvic organs descend from their normal positions due to weakened support structures. Multifaceted risk factors include aging, vaginal delivery, obesity, chronic abdominal pressure, and genetic predispositions. Molecularly, POP is driven by extracellular matrix remodeling, specifically an imbalance in enzymes like matrix metalloproteinases that degrade collagen and elastin fibers. Treatment options range from non-surgical interventions—such as pelvic floor muscle training, biofeedback, and vaginal pessaries—to surgical repairs and emerging stem cell therapies. The authors conclude that clinicians should prioritize early prevention and individualized conservative care, while calling for more clinical research into molecular mechanisms to enhance therapeutic outcomes and quality of life[20].
21. The research conducted by Jin et al. (2024) assessed the efficacy of nonsurgical interventions for women with Stage II cystocele, utilizing data from 302 patients. It compared pelvic floor muscle training (PFMT) by itself to PFMT plus other methods like vaginal pessaries or electrical stimulation. All methods showed some improvement, but the best results in terms of muscle strength and symptom relief came from combining PFMT with electrical stimulation. The research also discovered that variables such as age and body mass index can influence treatment results. The authors determined that a combined, nonsurgical strategy is significantly effective for alleviating symptoms in moderate cystocele and may facilitate the postponement or avoidance of surgery while enhancing overall quality of life[21].
22. Bosch-Donate et al. conducted a cross-sectional study in 2024, evaluating pelvic floor dysfunction (PFD) knowledge, symptoms, and gender stereotypes among 255 Spanish female athletes. Knowledge was sufficient regarding urinary incontinence but deficient concerning prolapse, anal incontinence, and particularly sexual dysfunction. Symptoms were very common, with dyspareunia, urine leakage, and pelvic pain being the most common. Nonetheless, a definitive correlation between knowledge levels and symptoms was not established. The study additionally demonstrated that more pronounced gender stereotypes correlated with diminished knowledge and an increased hesitance to pursue professional care. The authors determined that urgent comprehensive educational programs addressing all types of pelvic floor disorders are necessary, particularly focusing on sexual dysfunction, and highlighted the significance of integrating gender perspectives into these initiatives[22].
23. Beamish et al. (2024) reviewed how exercise after giving birth affects pelvic floor problems and recovery in the abdomen. An analysis of 43 studies involving nearly 10,000 women revealed that structured programs, particularly those incorporating pelvic floor muscle training, diminish the risk and severity of urinary incontinence and prolapse. Importantly, women who were active were not more

likely to have pelvic floor problems, even when they worked out harder. Exercise also helped with diastasis recti, but the best results were seen in bladder control and pelvic support. The authors determined that exercise is both safe and necessary postpartum, advocating for explicit guidance to promote physical activity and facilitate recovery, strength, and confidence[23].

24. Peinado-Molina et al. conducted a cross-sectional study in 2023 to evaluate the prevalence of pelvic floor dysfunctions (PFD) among 1,446 Spanish women. The most common problems were urinary incontinence (55.8%), pelvic pain (18.7%), prolapse (14.0%), and fecal incontinence (10.4%). The study found a number of things that could put people at risk. Older age, a higher BMI, menopause, vaginal delivery, and gastrointestinal problems were all linked to urinary incontinence. Fecal incontinence correlated with age, body mass index (BMI), instrumental delivery, and gastrointestinal pathology. There was a higher risk of prolapse with vaginal births, instrumental delivery, bigger babies, and digestive problems. Pelvic pain was also linked to a higher BMI, having a baby with tools, and other things like that. The authors determined that PFD is exceedingly common and underscored the necessity of mitigating modifiable risk factors to aid in the prevention of these conditions[24].
25. Cross et al. (2023) conducted a study comparing supervised Kegel exercises with biofeedback to unsupervised home-based training for women experiencing stress urinary incontinence. In this 12-week quasi-experimental study, 29 participants were evaluated for pelvic floor muscle strength (PFMS) and the severity of incontinence. Both groups had noticeable improvements in muscle strength and fewer symptoms. But the supervised group showed bigger improvements in PFMS and a bigger drop in the severity of incontinence than the group that wasn't supervised. These results indicate that although Kegel exercises are advantageous in any format, instruction and feedback augment their efficacy. The authors determined that supervised training utilising biofeedback should be prioritised in clinical practice to enhance outcomes in the management of stress urinary incontinence[25].
26. The research conducted by Pires et al. (2023) evaluated the efficacy of Kegel exercises as a primary intervention for various forms of urinary incontinence (UI) in women. They looked at clinical trials that were published between 2018 and 2023 in databases like PubMed and SciELO. The results showed that regular pelvic floor muscle training makes muscles stronger, stops involuntary urine leakage, and improves overall quality of life. The review also said that using helpful tools like biofeedback or vaginal spheres might help symptoms get better faster. The study found that Kegel exercises are a safe, low-risk, and effective conservative treatment. They should be the first thing women think of when they want to manage or stop urinary incontinence[26].
27. Culleton-Quinn et al. conducted a systematic review in 2022, analyzing the experiences of elite female athletes with pelvic floor dysfunction (PFD). Out of 1,922 studies, 32 were selected, revealing five principal themes: prevalent triggers such as training and competition, management strategies including pad usage and fluid restriction, a generally minimal impact on overall quality of life, significant adverse effects on performance, and emotional responses encompassing embarrassment and anxiety. Even though they had symptoms, very few athletes got professional help. The review emphasized a deficiency of qualitative research in this domain. The authors determined that further comprehensive research is essential to enhance the understanding of athletes' experiences, specifically their hesitance to pursue medical attention and the impact of PFD on both performance and emotional health[27].
28. Fathy et al. (2021) reviewed surgical techniques for rectocele, characterized by the protrusion of the rectum into the posterior vaginal wall. It looked at 27 studies to see how well the transperineal repair method worked. This method is done through the space between the vagina and anus. The results demonstrated that this technique effectively rectifies the anatomical defect and alleviates symptoms such as obstructed defecation. The review also looked at other methods, like using mesh and levatorplasty, to see if they lower the risk of recurrence. In general, the procedure worked well with few problems. The authors determined that surgical techniques must be customized to individual anatomy to attain superior, enduring results and enhanced daily comfort[28].
29. The review by Cho and Kim (2021) examined the role of pelvic floor muscle exercises (PFME) in the management of urinary incontinence, emphasizing both clinical applications and the relevant

anatomical considerations. It talked about how the levator ani and coccygeus muscles work together to support the urethra, which helps stop leaks and control urgency. The authors discovered that while PFME is regarded as the gold-standard initial treatment, its efficacy predominantly relies on adequate instruction and sustained long-term practice. They stressed that results might not be as good if the technique isn't right. The study found that doctors need to know a lot about pelvic anatomy and how to assess it in order to help patients effectively. This is so that patients can correctly use their muscles and see real improvements in their symptoms and daily confidence[29].

30. Bhawana Dhanvij's article from 2020 talked about the structural changes that happen when pelvic floor support weakens, with a focus on cystocele and rectocele. A cystocele involves the bladder bulging into the vaginal canal, while a rectocele refers to a similar protrusion of the rectal wall. The author emphasized that these conditions are primarily attributable to defects or tears in the fascia, the connective tissue that supports pelvic organs. The study also put these conditions into different grades, from mild cases to more severe ones where organs may reach or go beyond the vaginal opening. It stressed that knowing how bad the injury is and how much tissue is affected is important for choosing the best way to restore function and comfort for the patient[30].
31. Ghaderi et al. (2019) conducted a study assessing a multidisciplinary pelvic floor rehabilitation program for women experiencing dyspareunia. In this randomised controlled trial, 64 women were allocated to either an experimental group or a waitlist control group. The experimental group underwent electrotherapy, manual therapy, and pelvic floor exercises. The intervention group showed big improvements in muscle strength, endurance, and overall sexual function. They also reported less pain during sex. The control group exhibited no analogous alterations. The authors determined that the integration of physical therapy techniques is effective in managing dyspareunia, as it targets the musculoskeletal aspects of the condition and enhances quality of life and sexual health outcomes[31].
32. In the systematic review "Do Women have Adequate Knowledge about Pelvic Floor Dysfunctions?" by Júlia Ferreira Fante et al., the authors analyzed 19 studies involving 11,512 women and found that knowledge of pelvic floor disorders like urinary incontinence and pelvic organ prolapse is generally low to moderate. Many women fail to identify risk factors or available treatments, often viewing symptoms as a "normal" part of aging or avoiding care due to embarrassment. Knowledge gaps are most prevalent among women with lower educational levels, low socioeconomic status, and limited information access, with some studies specifically noting racial disparities. Ultimately, the researchers emphasize that educational programs and clear communication are vital to empower women to understand their bodies, participate in their care, and improve overall therapeutic success and quality of life[32].
33. Bø and Nygaard examined two conflicting perspectives on the impact of physical activity on the female pelvic floor in their 2019 narrative review. Exercise can make the muscles in the pelvic floor stronger, but it can also make them too tired and weak. In general, women who are active have muscles that are the same or stronger and a bigger levator ani, but they don't have a higher risk of having a hard labor. But female athletes are about three times more likely to have urinary incontinence than women who don't play sports. The review indicated that mild to moderate activities, such as walking, may decrease the risk of incontinence, whereas high-impact sports may elevate it. The evidence concerning anal incontinence and prolapse remains ambiguous. The authors concluded that individual tolerance levels likely influence outcomes, underscoring the necessity for additional high-quality research[33].
34. Wallace et al. (2019) said that pelvic floor physical therapy (PFPT) is an important treatment for women with pelvic floor dysfunction. It described PFPT as a planned program that uses functional retraining to make muscles stronger, more flexible, and more relaxed. The authors discovered it to be exceedingly efficacious in addressing conditions such as urinary and fecal incontinence, pelvic organ prolapse, and chronic pelvic pain. They did say, though, that things like not having enough time, not having insurance, and not knowing enough about the treatment can make it less successful. The study found that PFPT is a strong, evidence-based first-line treatment. It also found that standardizing

protocols could improve outcomes even more, helping women feel better, more confident, and able to do more in their daily lives[34].

35. The research conducted by Islam et al. (2019) delineated a comprehensive protocol to investigate the prevalence of pelvic floor disorders (PFD) in low- and middle-income nations. The authors formulated a systematic approach to identify and evaluate existing research regarding the prevalence of pelvic floor disorders (PFD) and its associated risk factors among women residing in community environments. Their review underscored that while PFD constitutes a significant global health issue, there exists a pronounced deficiency of standardized and reliable data from developing regions. This gap makes it hard to fully understand how big the problem really is. The authors concluded that generating consistent data is essential for developing effective public health policies and targeted interventions, ultimately helping improve access to pelvic health care and the quality of life for affected women[35].
36. Kimberly Saunders's (2017) review looked at changes in the structure and biology of the pelvic floor in women who have pelvic organ prolapse and those who don't. It didn't just look at muscle strength; it also looked at the role of skeletal muscles, ligaments, and the vaginal wall. The author discovered that women with prolapse frequently exhibit alterations in connective tissue, specifically in collagen and elastin, which impair the pelvic floor's capacity to recuperate from stress. Pelvic floor muscle training is still a good non-surgical treatment, but it only works if you know how muscles and supportive tissues work together. The study found that physical therapists should take a more holistic approach and look at the whole support system in order to improve symptoms and quality of life[36].
37. In their 2016 cross-sectional study, Parden et al. examined 1,092 women aged 19–30 to evaluate the prevalence, awareness, and comprehension of pelvic floor disorders (PFD). 10.3% of the participants said they had urinary incontinence, and there was no big difference between teens and young adults. Women aged 25–30, on the other hand, were more likely to have learned about urinary and fecal incontinence and pelvic organ prolapse, and they had a better understanding of what caused them. Students who were majoring in science knew even more. Even though most people weren't very worried about their symptoms, about a third of them said they wanted more information. The authors determined that enhancing education among younger women could significantly contribute to the prevention of pelvic floor disorders[37].
38. In their 2016 cross-sectional study, Neels et al. evaluated pelvic floor knowledge among 212 nulliparous women aged 18 to 27 years. The average self-reported knowledge level was low, at 2.4 out of 10. Most people knew that the pelvic floor has muscles and where it is, but fewer knew what it does, and less than half could name more than one role. Most people thought they didn't know enough and wanted to know more. Some people were worried about urinary and fecal incontinence, but only a small number of them knew what pelvic floor training really meant. The authors determined that the knowledge within this group is inadequate and underscored the necessity of early education to mitigate the risk of future pelvic floor dysfunction[38].
39. Salvatore Rocca Rossetti's article gives a full picture of pelvic floor anatomy, going beyond the usual separate descriptions. It stresses a holistic approach that combines embryology, phylogeny, anthropology, and functions that go beyond urological, gynaecological, and intestinal roles, such as posture and gait. The pelvic floor is a coordinated musculofascial unit with muscle groups that work together and against each other. Researchers have used electromyography, MRI, and histology to study it. It helps to keep the pelvic organs in place and helps with breathing, urination, defecation, sexual function, and standing up. The pelvic diaphragm, urogenital diaphragm, perineum, and reflex mechanisms are some of the most important parts that were talked about. The article concludes that contemporary research offers a more cohesive comprehension, aiding in the resolution of previous contradictory theories regarding pelvic floor function[39].
40. In their 2015 cross-sectional study, Almeida et al. examined pelvic floor dysfunctions (PFD) in 67 female amateur athletes and 96 nonathletes in Brazil. Athletes exhibited a markedly elevated risk of urinary incontinence, particularly in disciplines such as gymnastics, swimming, judo, and volleyball.

But they said they had less trouble going to the bathroom and more frequent stools. Involuntary gas loss was prevalent in both groups, exhibiting no significant difference. Interestingly, pelvic organ prolapse was only reported in nonathletes. In general, the results show that female athletes are more likely to have urinary incontinence, even though they have better bowel habits. The authors determined that pelvic floor health must be proactively incorporated into sports training and underscored the necessity for preventive measures and additional research in this domain[40].

## AIM OF THE STUDY

This survey based study aims to gather information regarding the level of awareness about the Pelvic Floor Muscle Weakness among women, misconceptions related to it and ways to correct it.

## OBJECTIVES

1. To evaluate the level of baseline awareness and knowledge of women regarding pelvic floor muscles, their functions, and the consequences of pelvic floor muscle weakness across different age, educational, and reproductive status groups.
2. To identify maladaptive beliefs, misconceptions, and factors (such as age, parity, and socioeconomic status) that are significantly associated with poor awareness of pelvic floor muscle weakness.
3. To determine the proportion of women who are aware of pelvic floor muscle training (PFMT) as a preventive and therapeutic intervention, and to assess their willingness to participate in such training if formally recommended.

## METHODOLOGY

### RESEARCH DESIGN:-

This study employed a **quantitative survey approach** to assess awareness levels among women regarding pelvic floor muscle weakness, a common yet often under-discussed health issue that can lead to problems like urinary incontinence, prolapse or sexual dysfunction.

**SAMPLE SIZE:** 100

**STUDY AREA:** Women above the age of 18

**STUDY SETTING:** Greater Noida

**DATA SOURCE:-** To ensure a broad database for the review, articles have been collected from various platforms:

- PubMed
- Google Scholar
- ScienceDirect
- Scopus
- CINAHL

**KEYWORDS:-**

- Pelvic floor anatomy
- Pelvic floor muscle weakness
- Pelvic floor dysfunction
- Urinary incontinence
- Fecal incontinence
- Pelvic organ prolapse

### INCLUSION CRITERIA:-

The studies were included if they met these criteria :-

- Adult women aged 18 years and above, regardless of reproductive or menopausal status.

- Women who are able to read, write and communicate in the language of the questionnaire (English).
- Women willing to provide informed consent to participate voluntarily in the study.
- Women with or without a prior diagnosis of any pelvic floor dysfunction, including urinary incontinence, prolapse, or pelvic pain.

**EXCLUSION CRITERIA:-**

Exclusion criteria included studies that:

- Pregnant women.
- Women diagnosed with pelvic floor disorders (to avoid bias).
- Incomplete form entries.
- Women below the age of 18 years.
- Women who can't read, write or communicate in the language of the questionnaire (English).

**RESEARCH GAP**

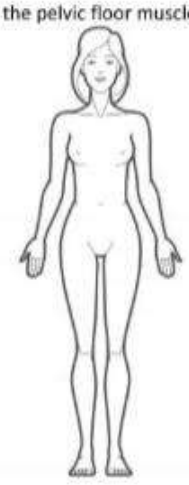
Pelvic floor muscle weakness affects as many as 50% of women following childbirth, leading to issues such as incontinence or discomfort. However, the bulk of research originates from Western contexts, with limited studies addressing awareness among Indian women.

The present study fills these voids by surveying 100 diverse Indian women to quantify awareness levels, pinpoint specific shortcomings (for instance, familiarity with Kegel exercises), and recommend practical strategies, including social media campaigns and targeted health education.

**OUTCOME MEASURE**

This questionnaire was obtained from a 2016 survey based study done by Hedwig Neels et al. Titled "Knowledge of the pelvic floor in women".[40]

1) How old are you? ... years
2) Mark your highest degree of education:
   ☐ Elementary School ☐ High School ☐ University/ College
3) What is your current occupation (profession)?.....
4) Nationality: Mark to which group you belong:
   ☐ Belgian ☐ Moroccan ☐ Polish
   ☐ Dutch ☐ Turkish ☐ Others: ...
5) Origin: Indicate your native origin:
   ☐ Belgian ☐ Moroccan ☐ Polish
   ☐ Dutch ☐ Turkish ☐ Others:....
6) What is included in the pelvic floor? Multiple answers are possible.
   ☐ Muscles ☐ Tendons and ligaments ☐ Abdominal organs: Uterus, bladder, bowel, kidneys
   ☐ Skin and fat ☐ Arteries and nerves
   ☐ Bone and joints ☐ Other: .....
7) Where can you localize the pelvic floor muscles? Please mark on this graph.



19) Does a healthy woman occasionally loses stool?

| | | | |
|---|---|---|---|
| Immediately after delivery | ☐ Yes | ☐ No | ☐ I don't know |
| 1 month after delivery | ☐ Yes | ☐ No | ☐ I don't know |
| 6 months after delivery | ☐ Yes | ☐ No | ☐ I don't know |

20) Does an average women experiences pain during intercourse?

| | | | |
|---|---|---|---|
| 1 month after delivery | ☐ Yes | ☐ No | ☐ I don't know |
| 6 months after delivery | ☐ Yes | ☐ No | ☐ I don't know |

21) **Circle per line** which way of delivery may have the most negative consequences for the pelvic floor muscles:

- Caesarean Section OR vaginal delivery
- Fast vaginal delivery OR vaginal delivery that takes longer
- Vaginal delivery with episiotomy (cut) OR vaginal delivery with rupture (tear)
- Vaginal delivery with spoons / forceps OR vaginal delivery with vacuum

22) What can be cut or tear during vaginal delivery? ☐ I don't know

.....

.....

23) What does the term "prolapse/sagging in the small basin" means for you? ☐ I don't know

.....

.....

What can prolapse/sag/descend in the small basin? ☐ don't know

.....

.....

24) Do pelvic floor muscles play a role in getting a sexual orgasm?
☐ Yes ☐ No ☐ I don't know

25) Does a healthy woman frequently experiences pain during sexual intercourse?
☐ Yes ☐ No ☐ I don't know

26) Does a healthy woman leaks a little bit urine during sexual intercourse?
☐ Yes ☐ No ☐ I don't know

27) Do you think that prenatal physiotherapy (during pregnancy, before delivery) is useful?
☐ Yes ☐ No ☐ I don't know

28) Do you think that postnatal physiotherapy (after delivery) is useful?
☐ Yes ☐ No ☐ I don't know

29) Do you know the therapy that is given to women with pelvic floor problems? Yes / No

30) Did you ever receive pelvic floor therapy? Yes / No

If yes, why? .....

31) How much do you know about the pelvic floor muscles on a scale from zero to ten, whereas zero is absolutely nothing and ten is expert in the domain? Mark your knowledge with a cross on the horizontal line.

0 ---------- 10

32) Did you ever receive information about the pelvic floor muscles? Yes / No
If yes: When? .....
For which reason? .....
From who/what? - multiple answers or possible -

- ☐ Gynecologist
- ☐ Friends/family
- ☐ Physiotherapist
- ☐ Nurse
- ☐ Midwife
- ☐ School
- ☐ General practitioner
- ☐ Information Evening
- ☐ Others: .....

33) Did you ever search for information about this topic on your own initiative? Yes / No
If yes: Through which source? - multiple answers are possible -

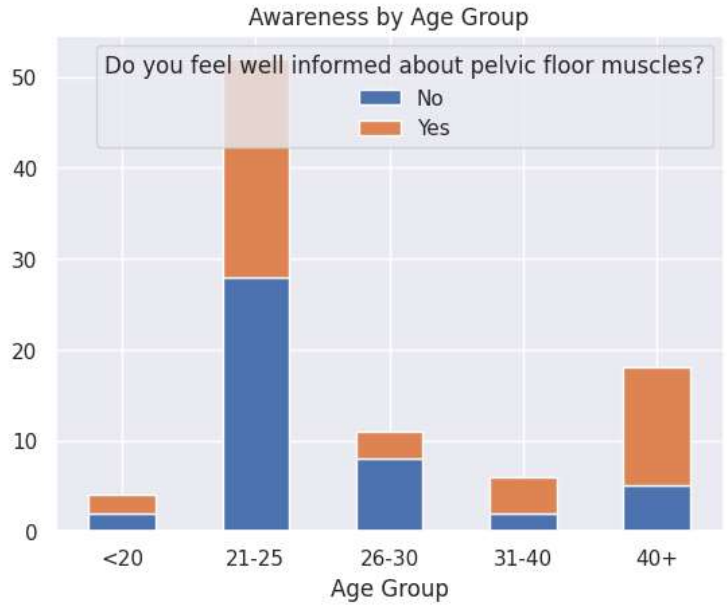
- ☐ Books
- ☐ Internet
- ☐ Gynecologist
- ☐ Physiotherapist
- ☐ Friends/family
- ☐ General practitioner
- ☐ Others: .....

34) Do you find yourself good enough informed about the pelvic floor muscles? Yes / No
35) Do you want more information about the pelvic floor muscles? Yes / No

36) Which is your biggest anxiety or fear about the pelvic floor? ☐ I don't know ☐ None
.....
.....

Thanks for your cooperation!

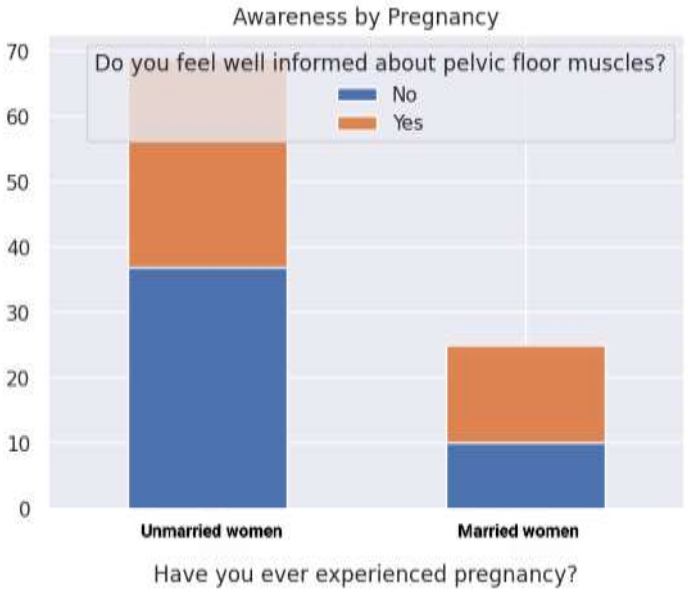
## RESULTS




## AWARENESS ACCORDING TO AGE:

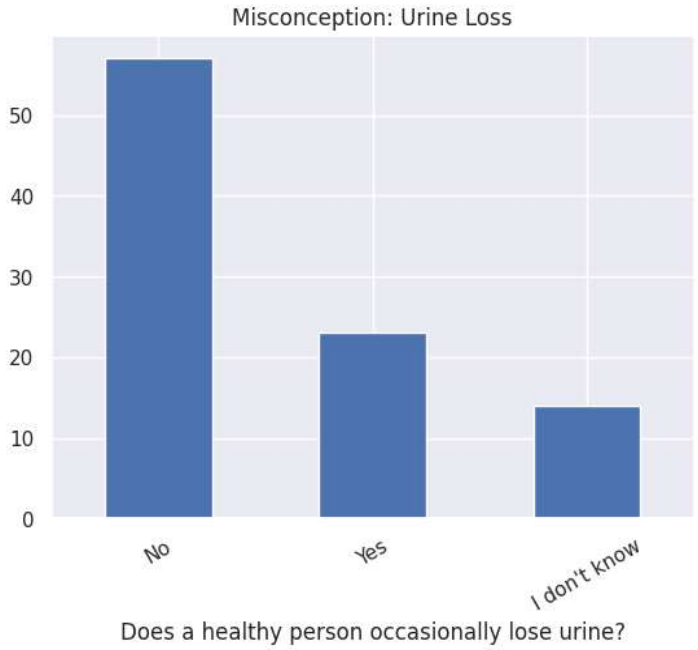
- 21–25 years old: Despite being the most represented, this generation had the highest participation rate as well as the highest percentage of women who said they were ill-informed, suggesting a large knowledge gap.
- 26–30 years old: Moderate awareness; compared to younger groups, slightly more women report being knowledgeable.
- Between the ages of 31 and 40, awareness starts to rise, perhaps as a result of greater exposure to pregnancy, childbirth, or medical services.
- 40+ years old: Demonstrates a comparatively greater awareness, probably due to personal experience with pelvic floor dysfunctions such prolapse or incontinence.
- Less than 20 years old: Very low awareness, indicating little exposure to pelvic health education.

**AWARENESS ACCORDING TO PREGNANCY:**




Among unmarried women (n ≈ 67), approximately 37 respondents (55%) reported feeling not well informed, while around 20 respondents (30%) indicated they were informed, with the remainder uncertain. Overall, the majority of unmarried women lacked awareness of pelvic floor muscles.
Among married women (n ≈ 25), approximately 10 respondents (40%) reported not feeling informed, while roughly 15 respondents (60%) felt they were informed suggesting a comparatively higher awareness level among married women.

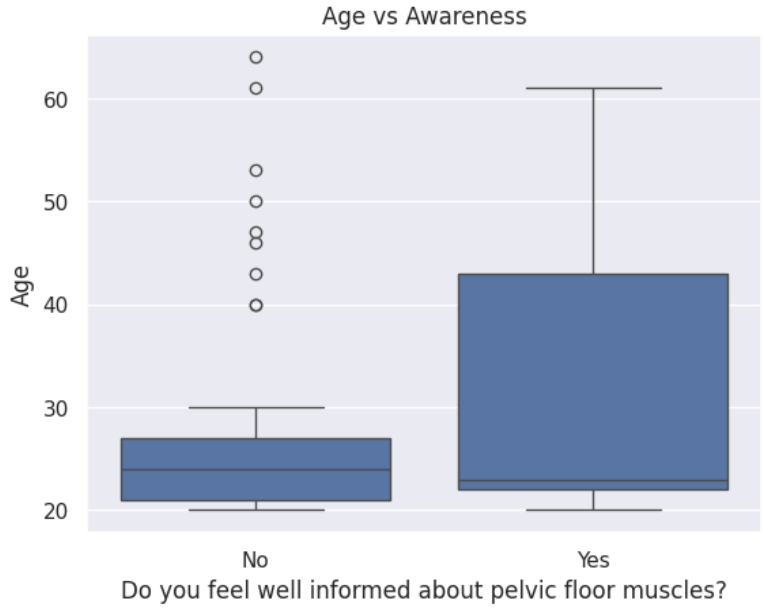
**PREVALENCE OF MISCONCEPTION REGARDING URINE LOSS:**




- No: ~57 respondents — the majority (≈60%)
- Yes: ~23 respondents (~24%)

I don't know: ~14 respondents (~15%)

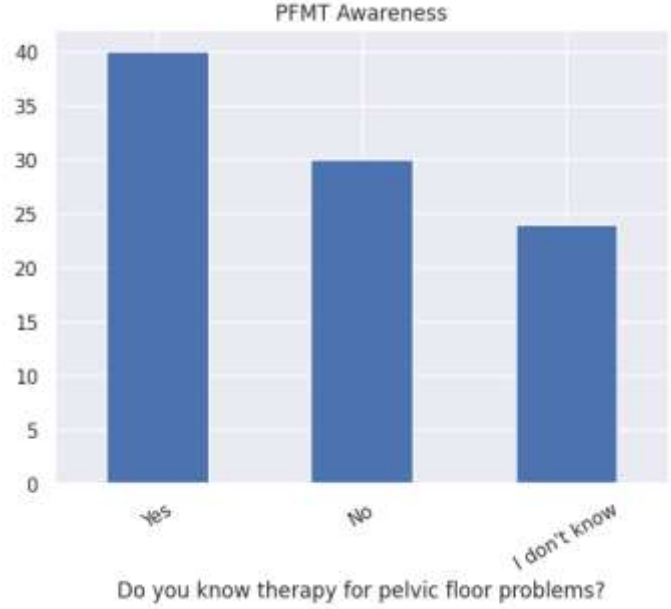
**ASSOCIATION BETWEEN AGE AND AWARENESS:**




The box plot analysis demonstrated that women who perceived themselves as well informed were generally older than those who did not.
However, the presence of outliers suggests that awareness is not solely dependent on age and may be influenced by other factors such as education, parity, or healthcare exposure.

**AWARENESS ABOUT PFMT (PELVIC FLOOR MUSCLE TRAINING):**

- Yes: About 40% of women were aware of therapeutic options such as PFMT.
- No: Nearly 30% were unaware.




**WILLINGNESS TO LEARN ABOUT PFMT:**

- Yes: Approximately 62% of participants expressed interest in receiving more information.
- No: Around 32% were not interested.


**DISCUSSION**

The current study aimed to assess the knowledge of the women in Greater Noida about the pelvic floor muscle training and their awareness of pelvic floor muscle weakness. According to the research, all age groups exhibit substandard awareness, with a definite tendency of growing knowledge as one ages even though the percentage of younger participants in the survey tended to be higher.

The low level of knowledge among younger women, particularly those aged 21–25 years, may be due to limited exposure to reproductive health education and the absence of symptoms related to pelvic floor dysfunction.

Similar findings have been reported in previous studies, which indicate that many women perceive pelvic floor disorders as conditions affecting only older or postpartum populations. This misconception delays preventive education and early intervention.

Women in the age group 30-40 are more likely to be aware of issues because of their own experiences with these disorders, menopause-related changes and as a result from more interactions with medical experts throughout these phases.

The association between age and awareness, indicates that while age is an important determinant, it is not the sole factor influencing knowledge. Sociodemographic variables such as educational status, parity, socioeconomic background, and access to healthcare services also play a vital role and should be explored in future research.

Nearly 60% of participants incorrectly believed that a healthy person occasionally loses urine. Whereas, in reality, occasional urine loss can be a symptom of pelvic floor dysfunction and is far more common than commonly acknowledged often underreported due to stigma, social taboos, lack of formal education and awareness.

This is consistent with studies showing that many women normalize or ignore symptoms of urinary incontinence, leading to delayed diagnosis and treatment.

Another significant finding of this study is the limited awareness of therapeutic options, with less than half of the participants recognizing pelvic floor muscle training as an effective intervention. PFMT is widely regarded as the first-line conservative management for pelvic floor dysfunctions. The lack of awareness regarding such an effective and non-invasive treatment highlights a crucial gap in public health education.

Though a strong willingness among participants to receive further information about PFMT is seen. Thus, educational initiatives such as community-based programs, antenatal and postnatal counseling, and digital

health campaigns, could significantly enhance awareness and promote preventive healthcare behaviors. However there were some limitations to this study. The study's Sample Size of 100 participants may have an impact on its ability to be generalized. The convenience Sampling Technique could have led to Selection bias.

## CONCLUSION

This research concludes that women, especially those in younger age groups, have inadequate knowledge of pelvic floor muscle weakness and how to treat it. Even though awareness increases with age, there are still large knowledge gaps in society at large.

Crucially, even though pelvic floor muscle training is an evidence-based first-line treatment for pelvic floor dysfunctions, less than half of the participants knew about it. The high level of interest in learning more highlights the potential efficacy of focused educational programs.

Hence, it is advised that community outreach programs, educational institutions, and hospital settings establish systematic awareness programs. Increasing awareness of pelvic floor health can help women live better lives by promoting early prevention and prompt intervention.

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