

# Exploring nulliparous women's perceptions of pelvic organ prolapse treatments: A qualitative study for enhancing nursing care in Romania



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#### **Abstract**

**Background:** There remains a significant gap in understanding what nulliparous (NP) women desire in terms of treatment for pelvic organ prolapse (POP) before pregnancy and childbirth. **Objective:** This study aimed to assess the perceptions of young NP women without POP regarding various POP treatments and identify their preferred treatment options to enhance quality in nursing practice.

**Methods:** This study employed a qualitative descriptive design involving thirteen young NP women at the Faculty of Medicine, Ovidius University from Constanța, Romania. Age, body mass index (BMI), comorbidities, previous surgical interventions, and smoking status were evaluated. Participants underwent a semi-structured interview from January to February 2024, during which their perceptions of different POP treatments were explored. The interviews were audio-recorded and transcribed verbatim and were analyzed using content analysis.

**Results:** The mean age of the NP women without POP was 24.23 years, with 61.53% having a BMI of 30 or greater and 69.23% reporting previous surgical interventions. Four dominant themes emerged: 1) the Internet as a source of information about treatments for POP; 2) insufficient knowledge about POP symptoms; 3) the preference for supervised PFM training; and 4) choosing the surgical treatments by vaginal route, although wishing to preserve the uterus.

**Conclusion:** The findings indicated that young NP women's perceptions of POP treatments were primarily influenced by online information. The preferred treatment for POP among young NP women was conservative, with a strong emphasis on supervised PFM training. This study provides valuable insights into nursing practice by highlighting NP women's perceptions and preferences for PFM training as a treatment for POP, potentially contributing to delaying the onset of this condition in their lives.

## Keywords

Romania; nulliparous women; pelvic organ prolapse; uterus; perception; body mass index; information sources; Internet

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## **Background**

The pelvic floor plays a crucial role in maintaining pelvic organ stability, supporting the pelvic diaphragm, which is essential for organ function and preventing conditions such as pelvic organ prolapse (POP) (Harper et al., 2023; Talasz et al., 2022). POP is a condition in which the pelvic organs, such as the bladder, uterus, or rectum, descend from their normal positions, often causing discomfort, urinary incontinence, or sexual dysfunction. One of the most significant risk factors for the development of POP is childbirth, especially vaginal deliveries (Ilunga-Mbaya et al., 2024). The strain placed on the pelvic floor during childbirth can weaken or damage the muscles and connective tissues, leading to an increased risk of prolapse.

Interestingly, although childbirth is a primary risk factor, cases of POP have been reported in young nulliparous (NP) women—those who have never given birth—although these cases are rare (Dietz et al., 2022). This lower incidence may be influenced by the underrepresentation of NP women in studies or the lack of consistent quantification of POP stages in this population. Furthermore, NP women may undergo fewer surgical interventions related to POP due to the absence of advanced prolapse stages, making early detection and awareness of the condition particularly important for this group.

One of the major barriers to the effective management of POP is the stigma and embarrassment many women feel when discussing their symptoms. This often results in underreporting and delays in seeking treatment, exacerbating the condition. Many women are unaware of the various treatment options available, which range from conservative approaches, such as pelvic floor exercises, to surgical interventions. This lack of awareness further emphasizes the need for targeted nursing care, as nurses are often on the front line of patient education and support.

Organizations have begun to develop programs to increase awareness of POP and its treatments, aiming to reduce the difficulties women face in accessing information (Ramage et al., 2023). However, despite these efforts, there is still a gap in research and healthcare systems when it comes to understanding the perceptions of NP women regarding POP and the treatments available to them. Studies show that young women often lack knowledge of pelvic floor disorders, with many unable to identify risk factors or understand the available treatments. For example, a Brazilian study revealed that fewer than 30% of high school students had basic knowledge of POP anatomy and structure (Prudencio et al., 2022). Addressing this educational gap by introducing POP-related information into school curriculums may serve as a proactive strategy for future nursing care, as early education can lead to better prevention and early intervention.

In addition to childbirth, other factors such as obesity, lifestyle choices, and environmental factors are also associated with the development of POP (Liu et al., 2023). These factors can place additional strain on the pelvic floor, contributing to the risk of prolapse. The lack of information about these risk factors and available treatments can delay access to care, resulting in worsened symptoms over time (Shitu et al., 2023). For nursing professionals, understanding NP women's awareness of POP and its treatments is essential for providing appropriate guidance. Increased awareness could lead to early interventions, which are vital in preventing the progression of the condition and improving nursing care (Ryan et al., 2021).

Many women also hold misconceptions about POP, believing it is caused by aging or inevitable due to physical activities such as weight lifting, and therefore, view it as a condition with no available treatment (Carroll et al., 2023). Healthcare professionals, particularly nurses, can use these beliefs as a foundation to educate women on modifiable risk factors, such as weight management and lifestyle changes. By counseling women on factors they can control, nurses can empower patients to make informed decisions about their health and prevent or manage POP more effectively.

This study seeks to evaluate the perceptions of young NP women regarding available treatments for POP and identify their preferred treatment options. Understanding the awareness levels and preferences of NP women could help improve nursing care by providing more targeted education, prevention strategies, and early interventions tailored to this population. Effective patient education and proactive management can significantly enhance patient outcomes and contribute to the overall quality of care in nursing practice.

#### Methods

#### **Study Design**

This study employed a qualitative descriptive design, which provides a comprehensive understanding of participants' perspectives on different treatments for POP. Qualitative data

were collected from selected participants through one-to-one in-depth interviews to obtain the perceptions of young NP women. The data describe who, what, and where the participants had experiences relevant to the study and where these experiences occurred (Doyle et al., 2020). The chosen design was appropriate for this study, as it provides an accurate description and understanding of the phenomenon of interest (Lambert & Lambert, 2012): the experiences of young NP women with a condition before pregnancy and childbirth.

#### **Participants**

The study aimed to recruit a group of young NP women without POP who were in their final year of medical education at the Faculty of Medicine, Ovidius University from Constanța, Romania. The interview was conducted from January to February 2024 at the hospital. Participants were enrolled purposively to ensure they had sufficient practical experience and skills to provide insight into the recognition and etiology of POP. The exclusion criteria included students or participants under 20 years of age due to their limited clinical knowledge. The inclusion criteria were as follows: 1) women of reproductive age, 2) women without any POP symptoms, 3) nulligravida, 4) Romanian-speaking women, and 5) women who voluntarily agreed to participate in the study.

#### **Data Collection**

Data were collected through individual face-to-face, semistructured interviews by the first author (DB) to maintain consistency in the questions and avoid bias. The interviews took place in a private, separate room at the hospital, with the date and time mutually agreed upon by the participants and the researcher. Only the participant and the researcher were present during the interview. Demographic data included age, body mass index (BMI), comorbidities, previous surgical interventions, and smoking status. The interview questions were open-ended and focused on different treatment options for POP, such as lifestyle and behavior changes, supervised pelvic floor muscle (PFM) training, vaginal pessary use, hormonal therapy, and surgical options with or without uterus preservation via vaginal or abdominal routes.

The authors developed an interview guide consisting of eight questions designed to be exploratory and open-ended to encourage participants to speak freely. Each interview lasted between 30 and 40 minutes and was audio-recorded. Field notes were taken after each interview until data saturation was reached.

The following questions were asked: 1) Have you ever received information about the treatment of pelvic organ prolapse? If so, how did you find out about it? 2) Have you ever experienced this condition? If not, have you met someone with this condition? Can you describe the symptoms associated with it? 3) What do you think are the treatments for pelvic organ prolapse? 4) Have you practiced any sports, or are you currently practicing? What type of sports and how often? 5) How do you view conservative/non-surgical treatments for pelvic organ prolapse, such as lifestyle and behavior changes, in comparison to supervised pelvic floor muscle training? Please elaborate, 6) How do you view conservative/nonsurgical treatments for pelvic organ prolapse, such as vaginal pessaries, in comparison to hormone replacement therapy? Why? 7) How do you perceive surgical treatment of pelvic

organ prolapse with uterus preservation compared to hysterectomy? Please elaborate, 8) How do you view surgical treatment for pelvic organ prolapse through the vaginal route compared to the abdominal route? Why?

#### **Data Analysis**

Qualitative analysis was employed, including data collection involving coding, grouping, categorization, interpretation, and identification of the main themes (Graneheim & Lundman, 2004). Initially, the first author transcribed each interview verbatim. Subsequently, the interview transcripts were carefully re-read to identify recurring words, phrases, or sentences. Significant codes were extracted by two researchers (DB and SI). Themes were then generated through the categorization of these codes. In the final step, the themes were reviewed with the participants to confirm their perspectives. Researchers (DB and SI) independently conducted the second and third steps, and in the final step, the themes were evaluated with all participants to confirm their views.

#### **Trustworthiness**

Member checking was conducted to ensure the accuracy and credibility of the thematic findings. In this process, the researchers reviewed the identified themes with all participants, providing them with an opportunity to confirm or clarify their views. This collaborative evaluation allowed participants to reflect on their experiences and validate that the themes accurately represented their perceptions.

#### **Ethical Considerations**

Ethical approval for this study was obtained from our Institutional Ethics Committee (Ref. No. 4604 and 4605/21.01.2022). During the interview, participants were encouraged to ask questions about the research and the researchers involved. Written informed consent was obtained from participants after they fully understood the study's purpose and felt comfortable proceeding. Participant confidentiality was maintained throughout the study, with all personal information and documents anonymized and securely stored to prevent any disclosure. Data and audio recordings were secured, with access restricted to the research team. The study emphasized voluntary participation, ensuring that participants had the autonomy to withdraw at any time (after data collection was concluded) without any repercussions.

#### Results

All thirteen selected young NP women (mean age 24.23, range 20-29 years) completed the semi-structured interview. Most of the participants had a body mass index (BMI) of 30 or greater, and all held a high school diploma. Eight young NP women (61.53%) reported engaging in physical exercise more than three times per week. Two participants (15.38%) had more than one comorbidity, such as anxiety or chronic gastritis, and 69.23% had undergone previous surgical interventions. Additionally, there were more non-smokers than smokers among the participants (61.53% vs. 38.46%) (see Table 1).

Table 1 Characteristics of the participants

Variable	f (%)
BMI (kg/m2)	
≥30 (obesity)	8 (61.53)
<30	5 (38.46)
Physical activity	
None	5 (38.46)
≥3	8 (61.53)
Comorbidities	
None	11 (84.61)
≥1	2 (15.38)
Previous surgical intervention	
None	4 (30.76)
≥1	9 (69.23)
Smoking status	
Smokers	5 (38.46)
Non-smokers	8 (61.53)

Four main themes were extracted from the interview, as follows: 1) the Internet as a source of information about treatments for POP; 2) insufficient knowledge about POP symptoms; 3) the preference for supervised PFM training; and 4) choosing the surgical treatments by vaginal route, although wishing to preserve the uterus.

# Theme 1: The Internet as a source of information about treatments for POP

This theme describes the sources of information about treatments for POP and highlights the need for more knowledge about the condition. None of the NP women appeared to know the exact treatments for POP, and most young NP women (n = 10, 76.92%) seemed to rely on the Internet as a source for information regarding POP treatments.

"I think [the treatments for POP are]- non-surgical and surgical. I didn't get it from the doctors, but I did a lot of research on the computer" (Participant No.1, aged 20)

"[The treatments for POP are] the surgical treatment and I assume the same as the non-surgical one. No, I didn't receive any information, but I got it from the Internet" (Participant No. 2, aged 26)

"I think it could be surgical or non-surgical treatment. I searched on the Internet, after hearing about this pathology and informed myself" (Participant No. 5, aged 29)

"I think they can be surgical and non-surgical. Well, I found out from the internet, I spend a lot of time on the Internet and read a lot of medical articles, and that's how I ended up reading about uterine prolapse" (Participant No. 7, aged 24)

"[The treatments are] surgical and non-surgical. I found out on my own on the Internet because my mother suffered from this pathology, and I wanted to find out more so I could help her" (Participant No. 9, aged 24)

"[The treatments are] surgical and non-surgical. I received information, I documented myself on the Internet for uterine prolapse" (Participant No. 10, aged 24)

"[The treatments are] surgical and non-surgical. Physically, I did not receive any information, I just documented myself from the Internet" (Participant No. 11, aged 24)

"Of course, there is surgical, so probably non-surgical as well. Honestly, I personally haven't heard from anyone, but I looked it up on the Internet. It seemed interesting to me, so I heard it in passing and said I'd take a look" (Participant No.12, aged 24)

Only one (7.69%) young NP woman obtained information from a brochure from a physician waiting room, one (7.69%) from relatives, and another one (7.69%) from friends.

"From what I read, I understood that surgery would be one of the methods; I also heard about these Kegel exercises, also from a colleague who also read on the Internet and got informed. I received information from a brochure that I read in the waiting room entering general practitioner, and it seemed interesting to me, and I continued to read it at home on the Internet" (Participant No. 3, aged 24)

"Surgical treatments or physical exercises. Yes, I knew about uterine prolapse; I received information because my mother works in the medical field and explained certain things to me" (Participant No. 4, aged 24)

"Yes, [the treatments for POP are] surgical and non-surgical. I had a friend who did the same sport as me, fencing, who suffered from uterine prolapse" (Participant No. 8, aged 24)

It seems that the Internet was the main source of information about POP treatments for this group of women. However, in the general population, the Internet is not always easily accessible, and a gap in information resources still exists.

#### Theme 2: Insufficient knowledge about POP symptoms

This theme describes the knowledge regarding the recognition of POP symptoms. Seven (53.84%) young NP women described imagining POP symptoms as feelings of pressure and heaviness.

"Yes, I think that also myself face this pathology. When I lift, I feel pressure on that area. I have been working in shifts for six years" (Participant No. 2, aged 26)

"No, I have not personally faced this condition, but at work, where I work in the kitchen, my older colleagues are used to lifting a lot of weights, and they told me that they started to feel a kind of pressure that press and some of them even said that they felt as if they had passed out" (Participant No. 3, aged 24)

"I didn't suffer personally, but my best friend told me that she has this problem and, from what I understood, she had pain while lifting weights and tightness in the abdomen" (Participant No. 5, aged 29)

"I haven't, but I heard from a colleague of mine that she felt a low embarrassment and a sense of pressure as if something was coming out" (Participant No. 6, aged 24)

"Personally, I have not faced them, a friend of mine, and a symptom - which she specified to me like a fall and a pressure" (Participant No. 11, aged 24)

Four (30.76%) NP women considered that there might be a feeling that something was sticking out.

"Yes, my cousin actually has uterine prolapse, and she told me that she feels a strange sensation down there and feels like something is coming out; that's what she told me" (Participant No. 7, aged 24)

"I personally didn't have it, but after my colleague had it, I looked on the internet to understand more things, and from what she told me and from what I understood, she felt as if she was falling something, like a pressure down" (Participant No. 8, aged 24)

"Personally, I have not gone through something like this, but I read the symptoms online, and from what I read, it would be as if something falls out of you and you feel a pressure" (Participant No. 12, aged 24)

"I haven't met either. Thank heaven that I don't have this problem, but from what I read on the Internet, because I wanted to know if I faced something like this, the symptoms would be in the form of a pressure that pushes outward" (Participant No. 13, aged 24)

Two (15.38%) NP women could not describe better any symptoms.

"No, I personally do not face this condition, but I know women who are affected by uterine prolapse" (Participant No. 4, aged 24)

"I did not have this condition myself, but my neighbor has it, and the symptom she presents would be related to something like the uterus" (Participant No. 10, aged 24)

Less than half of the interviewed young NP women were able to describe POP symptoms, and some of their descriptions appeared to be based on personal beliefs. This highlights the need for greater awareness of symptoms that should be easily recognized in the early stages of POP. This study shows that young NP women lack sufficient knowledge about POP symptoms, treatments, and the promotion of nursing care.

#### Theme 3: The preference for supervised PFM training

This theme describes the knowledge of different treatments for POP. When asked about various conservative treatments (i.e., lifestyle and behavioral changes, supervised PFM training, vaginal pessaries, or hormone replacement), nearly all young NP women (n = 12, 92.30%) preferred supervised PFM training as their treatment of choice. Interestingly, as a second option, all participants chose vaginal pessaries (n = 13, 100%), while none selected hormone replacement as a treatment for POP.

"I would see a training of the pelvic muscles much better, considering that it helps much more in restoring the prolapse ... I would choose [also] the pessary, because I would not like to take hormones for the rest of my life, to gain weight" (Participant No. 1, aged 20)

"I think that the one who trains the respective muscles because it is a more neglected area in general and it is good for everyone to adopt, so that everyone can not smoke, drink alcohol in moderation. I would like [also] the one with a pessary because I don't want to take hormones for the rest of my life, or have the side effects of hormones" (Participant No. 2, aged 26)

"Well, I would see the training of the pelvic muscles much more useful; it helps a lot in restoring the prolapse. I would choose [also] the pessary, but I wouldn't want to take hormones because I think they have some adverse effects that last" (Participant No. 4, aged 24)

"I think it is better to train the pelvic muscles because it strengthens the muscles, and it seems to me that there is a massive implication there. I would [also] prefer vaginal pessary because I would not want to take hormones; hormones have many adverse effects from what I have seen" (Participant No. 6, aged 24)

"Being an athlete, I think that training the pelvic muscles is the most appropriate, but also the lifestyle, I agree with a lifestyle that is as healthy as possible. But I think I would choose pelvic muscle training. I would choose [also] the pessary because I think the hormones would interfere with my active life and have a lot of side effects" (Participant No.7, aged 24)

"I read about the one by training the pelvic muscles, and I think I would prefer this one. It seems to me something that I could easily integrate into my daily routine anyway and it seems non-invasive, great. Well, honestly, I think I wouldn't take the one with the use of hormones because, from what I understand, it's always good to avoid everything related to hormones as a treatment, and if I have an alternative, I'd prefer [also] that one [vaginal pessaries]" (Participant No.8, aged 24)

"I would choose the training of the pelvic muscles, considering that it is much more suitable for prolapse conditions. ... I would choose [also] the pessary, without having to take any hormones" (Participant No. 10, aged 24)

"I would choose the training of the pelvic muscles, considering that it is much more suitable for prolapse conditions. I would choose [also] the pessary [...], without having to take hormones" (Participant No. 11, aged 24)

"Honestly, I think I would opt for the one that requires physical effort with the muscles, what you said, because I wouldn't want to spend the money on something else, and I think it would be the easiest. I could never go hormonal; it's not for me. I've read a lot of bad things about it, and I wouldn't want to do that" (Participant No.12, aged 24)

"I also read about the one that uses pelvic muscle training, and it is recommended even for women who do not have prolapse, and I agree with it; it works, and I think it is more useful. I would prefer [also] the one with a pessary because hormonal ones have many side effects, even contraceptive treatments have many side effects" (Participant No. 24)

Only one (7.69%) NP women approached lifestyle and behavioral changes.

"I believe that both are very good if they go hand in hand, and the exercises are performed correctly and clearly and the lifestyle is very important to be adapted. I would choose lifestyle change as a first step. I clearly consider that this option [vaginal pessaries] is much more advantageous, I am not a fan of estrogens, and I would rely more on the first option" (Participant No. 3, aged 24)

Most young NP women agreed with supervised PFM training and physical activities, and almost half did not agree with hormone use. Indeed, the women seem to carry more for increasing quality nursing care and agree to a more detailed physical program as a routine.

# Theme 4: Choosing the surgical treatment by vaginal route, although wishing to preserve the uterus

This theme describes their perception of surgical treatment via the vaginal or abdominal route, with or without uterus removal. All interviewed young NP women (n = 13, 100%) expressed a preference for vaginal route surgery in advanced cases while still wishing to preserve the uterus.

"Of course, I will choose the one to preserve the uterus because, being a woman, I consider it an organ of femininity; that is, I would not consider myself a woman" (Participant No. 2, aged 26)

"Personally, preserving the uterus seems important to me, that is, I am a young woman, and I would like to have children in the future, so clearly the first option is much better for me" (Participant No. 3, aged 24)

"I would prefer to keep my uterus because I would like to start a family in the future because I am a young woman" (Participant No. 4, aged 24)

"I personally would prefer to keep my uterus; I believe that all organs have a certain role" (Participant No. 6, aged 24)

"I consider that the uterus is one of the most important organs, and I would like to keep it from the bottom of my heart" (Participant No. 7, aged 24)

"Personally, at the moment, I don't want children, but to have this possibility in case I change my mind, I would prefer to have it, honestly" (Participant No. 8, aged 24)

"If I were to suffer from prolapse, I would like to keep my uterus because my mother opted for a hysterectomy, and I have seen the effects of an induced menopause, and I would like not to go through something like that" (Participant No. 9, aged 24)

"With the preservation of the uterus, considering that every organ has a role" (Participant No. 10, aged 24)

"I believe that every organ has a role; I would automatically choose to preserve the uterus" (Participant No. 11, aged 24)

"Well, I don't understand why I would remove the uterus; I want to keep it; maybe I'll have children; that's how I think about the future" (Participant No. 12, aged 24)

"Personally, I would like to have children, so if I were put in the situation where I had to choose, I would like to keep my uterus" (Participant No. 13, aged 24)

There was a desire to preserve the uterus as 'an organ of femininity,' but in some cases of advanced POP, they showed to choose surgical treatments by vaginal route.

#### Discussion

The study assessed the perceptions of young NP women without POP regarding different treatment options for POP and their interest in its management within nursing practice. Engaging with health institutions or schools to discuss such conditions represents a more effective approach. Such discussions could develop awareness and promote various treatments for POP, particularly among young women (Wang et al., 2022). Research by Schulten et al. (2022) suggests that factors such as birth weight, age, BMI, and levator defects are significant risk factors for POP. This present study aligns with these findings, as most young NP women without POP had higher BMI levels, which may place them at risk for developing the condition.

Moreover, knowledge about treatments for POP can positively influence women's behavior and enhance the quality of nursing care (Prateek et al., 2021). One study indicated that fewer than 30% of young women possess adequate knowledge about PFM function, which can delay their seeking medical assistance (Prudencio et al., 2022). Therefore, providing guidance on POP could improve NP women's understanding of treatment options before they become pregnant. Interestingly, this present study found that the Internet was the primary source of information for NP women, yet less than half could accurately describe POP symptoms. Another study suggests that each woman should first undergo a clinical evaluation based on her symptoms, followed by the presentation of various nursing care programs related to POP treatments, both conservative and surgical (Pizzoferrato et al., 2023), in order to determine their preferences.

In this study, most young NP women expressed a preference for supervised PFM training as the first-line

treatment for POP, with a desire to preserve their uterus and avoid abdominal surgery. This preference can be attributed to their youth, as they often view sports and lifestyle choices as integral to their quality of life. Guidance on supervised PFM training has been shown to enhance women's knowledge and encourage them to seek more information about POP treatments (Abhyankar et al., 2020; Borello-France et al., 2023). Unfortunately, there is currently a lack of information available to asymptomatic NP women, who may sometimes regard POP as a normal condition.

Interestingly, the symptoms associated with POP often create additional barriers to exercise. Furthermore, qualitative data on the impact of POP on quality of life remain scarce (Dakic et al., 2023). Previous studies have shown that anxiety can exacerbate POP symptoms and leave women feeling vulnerable to the condition (Harper et al., 2023; Soares et al., 2013). In the present study, one of the comorbidities identified was anxious depression, which may contribute to misunderstandings in how participants express their perceptions.

Another critical aspect that should be integrated into any nursing care program is the treatment options for POP (Prudencio et al., 2022). Research indicates that many respondents have inadequate awareness regarding available treatments for POP (Bahiyah Abdullah et al., 2023). Therefore, conservative treatments, such as supervised PFM training with a pelvic physiotherapist, should be more widely promoted to women before they consider surgical interventions.

Consequently, healthcare professionals and nursing care programs should incorporate physical training into specific educational initiatives for young NP women, creating a positive environment for their health. Additionally, future research and nursing practices concerning POP treatments could implement targeted programs aimed at younger NP women prior to their planning for pregnancy and childbirth.

#### Implications of the Study

The demand for improved performance through increased physical activity and a structured nursing care schedule is becoming more prominent. Raising awareness about physical exercises in targeted educational programs for young NP women prior to pregnancy and childbirth may significantly enhance nursing practice in this field. This study highlights the critical role of health education and nursing care in shaping students' knowledge and attitudes regarding treatment options for POP among NP women. Various programs can provide health education in both hospitals and schools about new treatments for POP, equipping young women with the insights necessary to understand the importance of prevention. Collaboration between healthcare policymakers educational institutions can facilitate the delivery of health education and the establishment of counseling programs focused on younger NP women. By encouraging open dialogue among young women, these initiatives can significantly promote positive attitudes toward early treatment for POP.

Further research in this area could explore the effectiveness of specific interventions to enhance students' knowledge and attitudes regarding treatment for POP. Longitudinal studies could provide a clearer understanding of how health education impacts attitudes over time. Additionally,

investigating the role of social media in shaping students' perceptions of treatment options for POP could lead to more targeted interventions.

#### **Strengths and Limitations**

This research study utilized face-to-face personal interviews to understand participants' perspectives better, which may not have been fully captured through other methods. However, to obtain a comprehensive view of NP women's perceptions regarding treatments for POP, the researchers used the same interview format for each participant. The study focused on a specific population sample, comprising only young NP women without POP who were in their final year of medical education at a single institution (Ovidius University from Constanța, Romania). While their experiences provide valuable insights, including a larger and more diverse group of participants from multiple institutions and locations could significantly enhance our understanding of NP women's perceptions of treatment for POP. Addressing these considerations will advance our knowledge and have broader implications for nursing practice.

### Conclusion

This study highlights the importance of enhancing knowledge and awareness about pelvic organ prolapse (POP) treatments among young NP women. The results indicate that their perceptions of treatments primarily favor conservative options, particularly supervised PFM training. Promoting the integration of supervised PFM training into their routines may improve nursing care quality and potentially reduce the occurrence of POP. While many young women rely on the Internet for information, their understanding of POP symptoms and treatment options remains limited. Therefore, targeted health education programs in schools and healthcare settings are crucial for fostering positive attitudes toward prevention and early treatment. Engaging young women in open discussions about POP can empower them to seek timely medical assistance.

#### **Declaration of Conflicting Interest**

The authors declared no conflict of interest.

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#### **Authors' Contributions**

As the first author, Diana Badiu has made substantial contributions to conception and design, including data collection, analysis, and interpretation of data. Silvia Izvoranu and Costin Niculescu substantially contributed to the interpretation of data and writing the manuscript. Daniel Clinci substantially contributed to the writing of the manuscript and editing of the English language. As a supervisor, Vlad Tica has been involved in editing and final approval of the manuscript.

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#### **Data Availability**

Supporting data for qualitative analysis are available upon reasonable request.

#### Declaration of Use of AI in Scientific Writing

The authors have declared that no generative AI was used in writing.

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