

# Vaginal Health in Menopausal Peruvian Women: Descriptive Research

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**ABSTRACT Objective:** To analyze vaginal health based on three dimensions: symptoms, information, and treatment in menopausal Peruvian women attended in first level health care facilities. **Material and Methods:** This is a descriptive, prospective, cross-sectional research, with the participation of women attended in first level health care facilities during the year 2021. A non-probability sample of 855 women was used. A vaginal health survey composed of 26 indicators was used through 3 dimensions: symptoms, information, and treatment, with a reliability coefficient of 0.79. **Results:** The mean age was 54.8±6.4 years, 67.8% had no knowledge of hormone therapy for menopause, while 80.9% said they did not use it. In the symptoms dimension: 22.6% experienced hot flashes frequently and 15.2% had vaginal symptoms (dryness, burning, and soreness), 54.9% considered them as a mild discomfort and described the symptoms as part of aging. In the information dimension: 60.4% stated that there is not enough information; 44.6% of women have access to information through their gynecologists, and 46.9% feel comfortable asking about treatment options. In the treatment dimension: 39.2% consider hormonal vaginal suppositories as an effective treatment; 23.5% did not use any treatment; and 73.8% would consider using hormone therapy during menopause. **Conclusion:** There was a high prevalence of vasomotor and vaginal symptoms affecting quality of life. The information given to patients was insufficient despite being provided by the gynecologist. There is acceptance for the use of local estrogen therapy.

**Keywords:** Menopause; vaginal health; vaginal atrophy; local estrogen therapy

As life expectancy at birth increases beyond the eighth decade, an increasing percentage of the female population is postmenopausal, and with the mean age for menopause being 51 years, this implies that more than one-third of a woman's life will be spent post menopause. This physiological process manifests itself through various symptoms produced by estrogen deficiency related to aging.<sup>1</sup> As the world's population increases and a greater percentage of this population is made up of people over 50 years of age, specialized medical care for these women becomes a priority for the various health systems.<sup>2</sup> By 2024, the number of postmenopausal women is expected to rise to 1.1 billion worldwide, with a predominance of the population over 50 years of age.<sup>3,4</sup>

Climacteric/menopause is characterized by a decrease in estrogen levels and the presence of somatic symptoms such as hot flashes, night sweats, and fatigue.<sup>5</sup> However, a significant group of women show little interest in attending to the various menopause-related vulvovaginal symptoms, which include vaginal dryness, recurrent urinary tract infections, and dyspareunia that result from decreased estrogen function.<sup>6-9</sup> Although these symptoms are often underestimated, they can affect 50% of women at this stage, negatively impacting their sexual health and quality of life.<sup>10</sup>

Likewise, vulvovaginal atrophy has unfavorable impacts, such as the presence of sexual dysfunction, lower urinary dysfunction, low self-esteem, and decreased sexual intercourse. However, various social

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and cultural factors influence women to report the presence of vaginal discomfort and sexual problems to their physicians in order to resolve them with effective treatment options.<sup>11,12</sup>

Research conducted in the United States among women over 45 years of age reported that 60% of women users and non-users of hormone therapy had experienced vaginal symptoms and more than 90% rated them as severe.<sup>13</sup> On the other hand, the high prevalence and diversity of symptoms associated with vaginal atrophy and its negative impact on sexual function and quality of life has not led most women to seek medical help. This health problem is due to the fact that many women do not consider it necessary to consult a physician about vaginal symptoms, because of embarrassment, because of cultural aspects or because they accept these symptoms as an inevitable consequence of aging.<sup>6,14</sup> Several reports have described that women lack knowledge about the cause, nature, and treatment for vaginal atrophy during postmenopause and progress to reduce this gap is minimal. For this reason, approaches are recommended to be implemented according to the health reality of each country.<sup>15,16</sup>

Research in Latin America has shown that menopause occurs at a relatively early age and is associated with a high prevalence of sexual dysfunction, with vaginal dryness being the main risk factor, having a negative impact on women's quality of life.<sup>17,18</sup>

Although there have been several studies worldwide that analyze women's attitudes towards vaginal atrophy and emphasize the importance of knowledge about the presence of vulvovaginal symptoms, no studies have been reported in Peru that have analyzed vaginal health in menopausal women. Therefore, the purpose of this research is to describe vaginal health in the dimensions of symptoms, information, and treatment in menopausal Peruvian women attended at first level health care facilities.

## MATERIAL AND METHODS

The research was conducted using a quantitative, descriptive, prospective, cross-sectional approach. The population consisted of women who were seen on an

outpatient basis by the gynecology unit in first level health care facilities in the city of Lima in 2021. Inclusion criteria were women between 45 and 65 years of age, and with an absence of menses for 12 or more months. The exclusion criteria were illiterate women and those who did not wish to participate. A non-probability convenience sample of 855 women was used.

For analysis of the vaginal health variable, the criteria of the vaginal health: insights, views & attitudes (VIVA) survey were used.<sup>6,18,19</sup> This is a structured, quantitative, and self-administered questionnaire; containing basic general information and consisting of 26 indicators in three dimensions: symptoms (vaginal symptoms, discomfort, dryness, itching, burning or soreness, involuntary urination, vaginal soreness related to touch or intercourse), information and treatment (for vaginal atrophy). The questionnaire has a content validity of 0.83 according to the kappa index and an overall reliability coefficient of 0.79.

Data processing and analysis was carried out by classifying, sorting and tabulating the data and then performing the univariate analysis for each dimension. The descriptive analysis was carried out using Microsoft Office Excel and SPSS version 23 in Spanish, using frequencies and percentage ratios for each indicator. All participants were informed of the scope and objectives of the research, and informed consent was obtained for their participation. The researchers applied the bioethical principles dedicated to health care research, as set out in the Declaration of Helsinki. Likewise, participants' confidentiality was maintained throughout the duration of the research. The research has been approved by the ethics committee of the Peruvian Society of Climacteric Diseases, with the following data: January 15, 2021. Document number 017-2021.

## RESULTS

A total of 912 women who met the inclusion criteria were invited to participate and 57 were excluded. The mean age was  $54.8 \pm 6.4$  years. Of the women, 44.4% were married, 29.3% were cohabiting; 46.4% reported having completed secondary education, and 27.5% had a higher education, 43.4% of the women

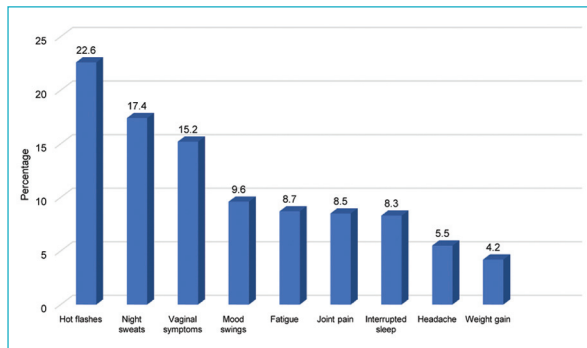


FIGURE 1: Most frequent symptoms reported by patients.

are engaged in domestic work and 52.4% work as employees in various companies and/or are self-employed. 67.8% have no knowledge of hormone therapy for menopause; and 80.9% stated that they do not use it.

According to the results for the symptoms dimension, 22.6% of the women reported the presence of hot flashes as an important and most frequent symptom, 17.4% night sweats, 15.2% vaginal symptoms, and 4.2% weight gain (Figure 1). Likewise, 46.7% stated that they experienced vaginal dryness, burning, and soreness during sexual intercourse as part of the symptoms of menopause; 76.7% had experienced vaginal discomfort after stopping menses, 29% reported dyspareunia, and 23.2% involuntary urination.

The presence of symptoms related to vaginal discomfort was considered mild by 54.9% of women, moderate by 40%, and 44.6% stated that they had experienced the presence of these symptoms for less than 1 year. Moreover, 32.5% of women were more concerned about involuntary urination and 31.6% about the presence of vaginal soreness during medical examination or sexual intercourse. The presence of vaginal symptoms or discomfort were described as part of aging by 32.2% of women. 19.8% reported less sexual activity, and 17.4% expressed feeling embarrassed. While 86.4% stated that vaginal discomfort affects their life, the most affected areas were: 33.2% sex life, 18.6% marriage, and 15.4% feeling older.

In the information and counseling dimension, 60.4% of women stated that there is not enough in-

formation about the symptoms and treatment for vaginal discomfort, while 44.6% go to a gynecologist and 15.3% to a general practitioner to seek information and understand the symptoms and access treatment (Figure 2). Likewise, 28.9% of women preferred to ask about treatment options and 46.9% said they felt comfortable asking about treatment options. 72% of women contact a gynecologist to access treatment for vaginal discomfort, 28% contact a general practitioner. Finally, 54.4% experienced vaginal discomfort for 6 months before visiting a general practitioner and/or gynecologist.

In the treatment dimension, 39.2% consider vaginal hormonal suppositories to be an effective treatment for vaginal discomfort, while 28% point to lubricants, gels, and creams. Similarly, 35.7% have used vaginal suppositories as a treatment for vaginal symptoms or discomfort and 23.5% have not used any treatment (Figure 3).

On the other hand, 73.8% of women would consider taking hormone therapy at menopause to treat

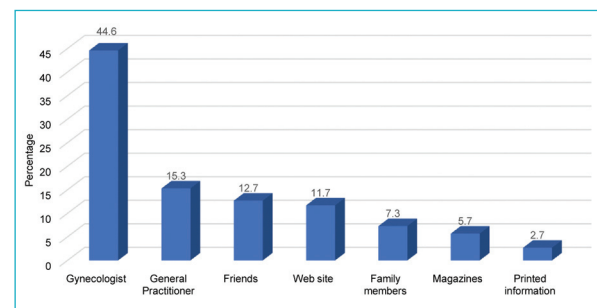


FIGURE 2: Accessing information to understand symptoms and treatment options for vaginal discomfort.

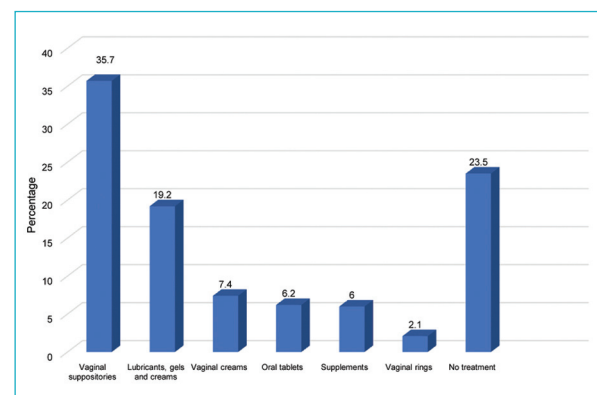


FIGURE 3: Treatment used for vaginal symptoms or discomfort.

vaginal discomfort. Likewise, 39.4% of women stated that hormone therapy has consequences for stroke and 28.4% stated they may develop breast cancer. 72.9% considered using local estrogen therapy in small amounts as vaginal suppositories, creams or rings. 27.3% said they strongly agreed with having greater comfort without the need to have a youthful vagina and 34.3% of the women said they strongly agreed with having the freedom to be a woman according to their perspective of personal development, regardless of age.

## DISCUSSION

Vaginal atrophy affects most women during peri- and postmenopause, with a prevalence ranging from 36% to 90%. There are recent reports indicating that this condition is also present during premenopause with a prevalence of 19% in women aged 40 to 45 years.<sup>20-24</sup> Most women do not discuss their symptoms with their physicians for a variety of reasons; often because they believe it is just a natural part of aging or because they feel uncomfortable talking about it. They are often unaware of existing treatment to alleviate vaginal discomfort due to time constraints and/or lack of interest on the part of the attending physician.<sup>21,25</sup>

Chinese women have shown limited knowledge of hormone therapy for menopause (3.5%), which is a marked difference with our results. Although women aged 50-59 years with symptoms are more likely to have better knowledge of hormone therapy, only 2.1% currently use the therapy in accordance with a physician's prescription, which is much lower than the data described in our study.<sup>26</sup>

Vaginal dryness, itching, burning, and soreness are perceived as symptoms associated with estrogen deficiency involving changes in the vagina, urethra, and bladder. While the results were obtained from women with different social and demographic characteristics, the differences were not significant.<sup>21,27</sup> Likewise, vaginal dryness, burning, irritation and discomfort have a high prevalence in women despite using menopausal hormone therapy.<sup>28</sup> Women's EMPOWER research reported a prevalence of 77% for vaginal irritation and discomfort, similar to the

results described in our research and higher than those described by the VIVA and REVIVE studies.<sup>15</sup>

Approximately one-third of the participating women reported dyspareunia, whose symptoms are considered bothersome because they significantly interfere with the enjoyment of sexual intercourse and generate a sense of loss of sexual intimacy, this can affect up to 67% of Hispanic women.<sup>16</sup>

Research conducted in European women showed the presence of diverse patterns of seeking information to address vaginal discomfort, with higher rates observed in Hispanic women and lower rates in the United Kingdom. When asked about how they obtain information about vulvovaginal atrophy, most women stated that they obtain information through family and friends; while Italian women are more likely to seek information from newspapers and magazines.<sup>16</sup> It is important to note that our results allow us to identify that the majority of women go to their general practitioner and/or gynecologist to seek information and ask about treatment.

Currently, most women seeking gynecological care also establish a conversation about the symptoms of vulvovaginal atrophy, although some acknowledged that they expected the physician to initiate the dialogue to ask about symptoms related to menopause.<sup>15</sup> Despite this, it has also been reported that, in some cases, the conversation with the physician is avoided because they feel embarrassed or consider vulvovaginal atrophy to be part of the natural process of aging.<sup>29</sup> Special emphasis should be placed on initiating treatment as soon as symptoms of vulvovaginal atrophy appear and treatment should be maintained over time.<sup>16,30</sup>

Vaginal suppositories and lubricants are considered an effective treatment by most women. However, in the findings described by Krychman et al., 50% of women agreed to treatment for vulvovaginal atrophy by using lubricants and moisturizers.<sup>15</sup> Other research conducted in Europe described that vaginal suppositories and moisturizers were used by 23% of women, although women in Finland and Sweden are more likely to use vaginal suppositories.<sup>6</sup> In addition, the findings described by the VIVA study in Ameri-

can women reported the use of vaginal estrogen suppositories in 15% of women.<sup>31</sup>

It is important to note that the initiative of studies on this topic is to provide relevant information to help medical professionals better understand what women face during climacteric and menopause. In addition, the severity of symptoms and the experience of menopause vary considerably between cultures and countries. Cultural differences seem to explain in some cases why symptoms are seen as a medical condition or a natural phenomenon within the society.<sup>32</sup>

Among the limitations, as with all surveys, the survey data are subject to self-report limitations of the participating women. Efforts were made to have a more representative sample of women to ensure data quality and eliminate potential bias.

## CONCLUSION

Women's vaginal health affects the quality of life. Menopause-related symptoms include vaginal dryness, burning, soreness, and dyspareunia, which appear after the cessation of menses and affect the sexual and marital environment. The information

they have about treatment is insufficient and thus there is greater acceptance for the use of local estrogen therapy.

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### Conflict of Interest

*No conflicts of interest between the authors and / or family members of the scientific and medical committee members or members of the potential conflicts of interest, counseling, expertise, working conditions, share holding and similar situations in any firm.*

### Authorship Contributions

**Idea/Concept:** Juan Matzumura Kasano; **Design:** Juan Matzumura Kasano; **Control/Supervision:** Juan Matzumura Kasano; **Data Collection and/or Processing:** Hugo Gutierrez Crespo, Isabel Julia Alamo Palomino; **Analysis and/or Interpretation:** Juan Matzumura Kasano, Hugo Gutierrez Crespo; **Literature Review:** Hugo Gutierrez Crespo; **Writing the Article:** Isabel Julia Alamo Palomino; **Critical Review:** Juan Matzumura Kasano; **References and Fundings:** Hugo Gutierrez Crespo.

## REFERENCES

1. U.S. Census Bureau. Current population reports: Population projections of the United States 1977 to 2050. Washington: U.S. Government Printing Office 1993. [Cited: Nov 22, 2022]. Available from: [\[Link\]](#)
2. Lobo RA. Menopause and aging. In: Strauss JF, Barbieri RL, Gargiulo AR, Yen SSC, Jaffe RB, eds. Yen and Jaffe's Reproductive Endocrinology: Physiology, Pathophysiology, and Clinical Management. 8th ed. Amsterdam: Elsevier; 2019. p.322-56. [\[Crossref\]](#)
3. Matzumura-Kasano JP, Gutiérrez-Crespo HF, Wong-Mac JI, Alamo-Palomino IJ. Instrumento para la evaluación del climaterio y la menopausia en el primer nivel de atención (Instrument for Climacteric and Menopausal Evaluation in the First Care Level). Rev. Fac. Med. Hum. 2020;20(4):560-67. [\[Crossref\]](#)
4. Avis NE, Crawford SL, Greendale G, Bromberger JT, Everson-Rose SA, Gold EB, et al; Study of Women's Health Across the Nation. Duration of menopausal vasomotor symptoms over the menopause transition. JAMA Intern Med. 2015;175(4):531-9. [\[Crossref\]](#) [\[PubMed\]](#) [\[PMC\]](#)
5. Dennerstein L, Dudley EC, Hopper JL, Guthrie JR, Burger HG. A prospective population-based study of menopausal symptoms. Obstet Gynecol. 2000;96(3):351-8. [\[Crossref\]](#) [\[PubMed\]](#)
6. Nappi RE, Kokot-Kierepa M. Vaginal health: insights, views & attitudes (VIVA) - results from an international survey. Climacteric. 2012;15(1):36-44. [\[Crossref\]](#) [\[PubMed\]](#)
7. Mac Bride MB, Rhodes DJ, Shuster LT. Vulvovaginal atrophy. Mayo Clin Proc. 2010;85(1):87-94. [\[Crossref\]](#) [\[PubMed\]](#) [\[PMC\]](#)
8. Bachmann GA, Nevadunsky NS. Diagnosis and treatment of atrophic vaginitis. Am Fam Physician. 2000;61(10):3090-6. [\[PubMed\]](#)
9. Gass ML, Cochrane BB, Larson JC, Manson JE, Barnabei VM, Brzyski RG, et al. Patterns and predictors of sexual activity among women in the Hormone Therapy trials of the Women's Health Initiative. Menopause. 2011;18(11):1160-71. [\[Crossref\]](#) [\[PubMed\]](#)
10. Parish SJ, Nappi RE, Krychman ML, Kellogg-Spatt S, Simon JA, Goldstein JA, et al. Impact of vulvovaginal health on postmenopausal women: a review of surveys on symptoms of vulvovaginal atrophy. Int J Womens Health. 2013;5:437-47. [\[Crossref\]](#) [\[PubMed\]](#) [\[PMC\]](#)
11. Kim HK, Kang SY, Chung YJ, Kim JH, Kim MR. The recent review of the genitourinary syndrome of menopause. J Menopausal Med. 2015;21(2):65-71. [\[Crossref\]](#) [\[PubMed\]](#) [\[PMC\]](#)
12. Kim TH, Lee ES, Lee HH, Kim JM, Kim YS, Lee B. Vaginal Health: Insights, Views and Attitudes (VIVA). Results from a survey in South Korea. Clin Exp Obstet Gynecol. 2019;46(6):938-42. [\[Crossref\]](#)
13. Santoro N, Komi J. Prevalence and impact of vaginal symptoms among postmenopausal women. J Sex Med. 2009;6(8):2133-42. [\[Crossref\]](#) [\[PubMed\]](#)



14. Sturdee DW, Panay N; International Menopause Society Writing Group. Recommendations for the management of postmenopausal vaginal atrophy. *Climacteric*. 2010;13(6):509-22. [[Crossref](#)] [[PubMed](#)]
15. Krychman M, Graham S, Bernick B, Mirkin S, Kingsberg SA. The Women's EMPOWER survey: women's knowledge and awareness of treatment options for vulvar and vaginal atrophy remains inadequate. *J Sex Med*. 2017;14(3):425-33. [[Crossref](#)] [[PubMed](#)]
16. Nappi RE, Palacios S, Particco M, Panay N. The REVIVE (REal Women's Views of Treatment Options for Menopausal Vaginal ChangEs) survey in Europe: Country-specific comparisons of postmenopausal women's perceptions, experiences and needs. *Maturitas*. 2016;91:81-90. [[Crossref](#)] [[PubMed](#)]
17. Blümel JE, Chedraui P, Baron G, Belzares E, Bencosme A, Calle A, et al; Collaborative Group for Research of the Climacteric in Latin America (REDLINC). Sexual dysfunction in middle-aged women: a multicenter Latin American study using the Female Sexual Function Index. *Menopause*. 2009;16(6):1139-48. [[Crossref](#)] [[PubMed](#)]
18. Nappi RE, de Melo NR, Martino M, Celis-González C, Villaseca P, Röhrich S, et al. Vaginal Health: Insights, Views & Attitudes (VIVA-LATAM): results from a survey in Latin America. *Climacteric*. 2018;21(4):397-403. [[Crossref](#)] [[PubMed](#)]
19. Pompei LM, Wender MCO, de Melo NR, Kulak J Jr, Pardini D, Machado RB, et al. Vaginal Health: Insights, Views & Attitudes survey in Latin America (VIVA-LATAM): focus on Brazil. *Climacteric*. 2021;24(2):157-63. [[Crossref](#)] [[PubMed](#)]
20. Palma F, Volpe A, Villa P, Cagnacci A; Writing group of AGATA study. Vaginal atrophy of women in postmenopause. Results from a multicentric observational study: The AGATA study. *Maturitas*. 2016;83:40-4. [[Crossref](#)] [[PubMed](#)]
21. Kingsberg SA, Krychman M, Graham S, Bernick B, Mirkin S. The women's EMPOWER survey: identifying women's perceptions on vulvar and vaginal atrophy and its treatment. *J Sex Med*. 2017;14(3):413-24. [[Crossref](#)] [[PubMed](#)]
22. Nappi RE, Seracchioli R, Salvatore S, Cagnacci A, Di Paolantonio T, Busacca M; investigators of the EVES Study. Impact of vulvovaginal atrophy of menopause: prevalence and symptoms in Italian women according to the EVES study. *Gynecol Endocrinol*. 2019;35(5):453-9. [[Crossref](#)] [[PubMed](#)]
23. Moral E, Delgado JL, Carmona F, Caballero B, Guillán C, González PM, et al; as the writing group of the GENISSE study. Genitourinary syndrome of menopause. Prevalence and quality of life in Spanish postmenopausal women. The GENISSE study. *Climacteric*. 2018;21(2):167-73. [[Crossref](#)] [[PubMed](#)]
24. Cagnacci A, Xholli A, Sciauzero M, Venier M, Palma F, Gambacciani M; writing group of the ANGEL study. Vaginal atrophy across the menopausal age: results from the ANGEL study. *Climacteric*. 2019;22(1):85-9. [[Crossref](#)] [[PubMed](#)]
25. Nappi RE, Particco M, Biglia N, Cagnacci A, Di Carlo C, Luisi S, et al. Attitudes and perceptions towards vulvar and vaginal atrophy in Italian postmenopausal women: Evidence from the European REVIVE survey. *Maturitas*. 2016;91:74-80. [[Crossref](#)] [[PubMed](#)]
26. Jin F, Tao M, Teng Y, Shao H, Li C, Mills E. Knowledge and attitude towards menopause and hormone replacement therapy in Chinese women. *Gynecol Obstet Invest*. 2015;79(1):40-5. [[Crossref](#)] [[PubMed](#)]
27. Nappi RE, Palacios S, Panay N, Particco M, Krychman ML. Vulvar and vaginal atrophy in four European countries: evidence from the European REVIVE Survey. *Climacteric*. 2016;19(2):188-97. Erratum in: *Climacteric*. 2016;19(2):i. [[Crossref](#)] [[PubMed](#)] [[PMC](#)]
28. Panay N, Palacios S, Bruyniks N, Particco M, Nappi RE; EVES Study investigators. Symptom severity and quality of life in the management of vulvovaginal atrophy in postmenopausal women. *Maturitas*. 2019;124:55-61. [[Crossref](#)] [[PubMed](#)]
29. Naumova I, Castelo-Branco C. Current treatment options for postmenopausal vaginal atrophy. *Int J Womens Health*. 2018;10:387-95. [[Crossref](#)] [[PubMed](#)] [[PMC](#)]
30. Utian WH, Maamari R. Attitudes and approaches to vaginal atrophy in postmenopausal women: a focus group qualitative study. *Climacteric*. 2014;17(1):29-36. [[Crossref](#)] [[PubMed](#)] [[PMC](#)]
31. Simon JA, Kokot-Kierepa M, Goldstein J, Nappi RE. Vaginal health in the United States: results from the Vaginal Health: Insights, Views & Attitudes survey. *Menopause*. 2013;20(10):1043-8. [[Crossref](#)] [[PubMed](#)]
32. Lui-Filho JF, Pedro AO, Baccaro LF, Costa-Paiva L. Risk factors associated with intensity of climacteric symptoms in Brazilian middle-aged women: a population-based household survey. *Menopause*. 2018;25(4):415-22. [[Crossref](#)] [[PubMed](#)]