



Abstract 424- Prevalence, severity and impact of vaginal capacity issues in women of different ages attending urogynecology clinics

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Hypothesis/aims of study

This study analyses data collected prospectively using a validated electronic Personal Assessment Questionnaire, evaluating Pelvic Floor conditions (ePAQ-PF) routinely used in UK urogynecology units for over 15 years.

The vaginal dimension of the questionnaire includes a domain addressing symptoms relating to Vaginal Capacity (VC). Three VC items comprising the domain are:

1. Is the entrance of your vagina too tight or narrow?
2. Is your vagina too tight inside?
3. Is your vagina too short in its length?

Vaginal tightness may be caused due to vulvovaginal atrophy or genitourinary syndrome of menopause (GSM).¹

Increasing age affects vaginal length and tightness. VC issues become more severe after menopause. Mean vaginal length is significantly shorter in postmenopausal women than in premenopausal women.²

Hypothesis:

- VC symptoms are prevalent and have an impact on women attending clinics.
- VC severity increases with increasing age, peaking in the post-menopause group.
- The impact of VC symptoms is highest reported among younger women.
- VC symptoms are associated with dyspareunia and QoL.
- The main goal for women with VC is to improve sexual function.
- VC issues following anterior vaginal wall repair surgery and sacropexy will improve but will be worse with vaginal hysterectomy as hysterectomies shorten vaginal length significantly.

Aims:

- Establish the proportion of women attending urogynaecology clinics reporting VC issues.
- Determine the duration for which women presenting to the clinic have experienced VC issues.
- Calculate Impact Factor scores to evaluate the effect of VC symptoms on women.
- Assess the relationship between VC and dyspareunia.
- Assess the relationship between VC pelvic floor conditions.
- Subgroup Analysis of age groups in women with VC issues by assessing the differences in VC Impact Factor Scores in different age groups.
- Conduct a thematic analysis of the free text data to identify the main concerns and goals of women with VC issues.
- Assess the impact surgical interventions on pelvic floor conditions have on VC using the Domain Scores.

Study design, materials and methods

Observational Cohort Study: 17,009 women attending urogynaecology clinics across seven NHS Trusts. Data were prospectively collected between 2012-2022.

Criteria: Women 18 and older who completed the ePAQ-PF questionnaire as part of routine clinical assessments were included. Exclusion criteria involved incomplete data entries, incorrect NHS numbers, or non-consent.

Consent and Ethical Approval: Ethical approval was secured from the North of Scotland Research Ethics Committee, and participants provided consent via the ePAQ-PF questionnaire in compliance with GDPR.

Mixed-Methods Approach:

Quantitative Analysis:

- VC domain scores were calculated by asking patients questions about vaginal tightness and length, with scores ranging from 0 to 100.
- Patients scored the severity and bother of their VC symptoms (e.g., "a bit of a problem," "quite a problem," or "a serious problem").
- Spearman's Rank Correlation: To evaluate relationships between VC scores and other symptom domains like dyspareunia, prolapse, and sexual function.

Qualitative Analysis:

- Goals and concerns reported regarding VC symptoms were analysed from free-text responses.

Materials and Methods

- Respondents were grouped by age (18-20, 21-30, 31-40, 41-50, 51-60, 61-70, 71-80, and 81+). All NHS Trusts followed a standardised procedure to ensure consistent data collection.

Data Collection via ePAQ-PF: Relationships between VC were assessed across other domains of pain, prolapse, and sexual function domains.

Surgical Intervention Data: Cross-referenced from the British Society of Urogynaecology database. Surgical outcomes were assessed by comparing pre- and post-surgical ePAQ-PF scores using paired two-tailed T-Tests in patients undergoing anterior vaginal wall repair, sacrocolpopexy, or vaginal hysterectomy.

Results and interpretation

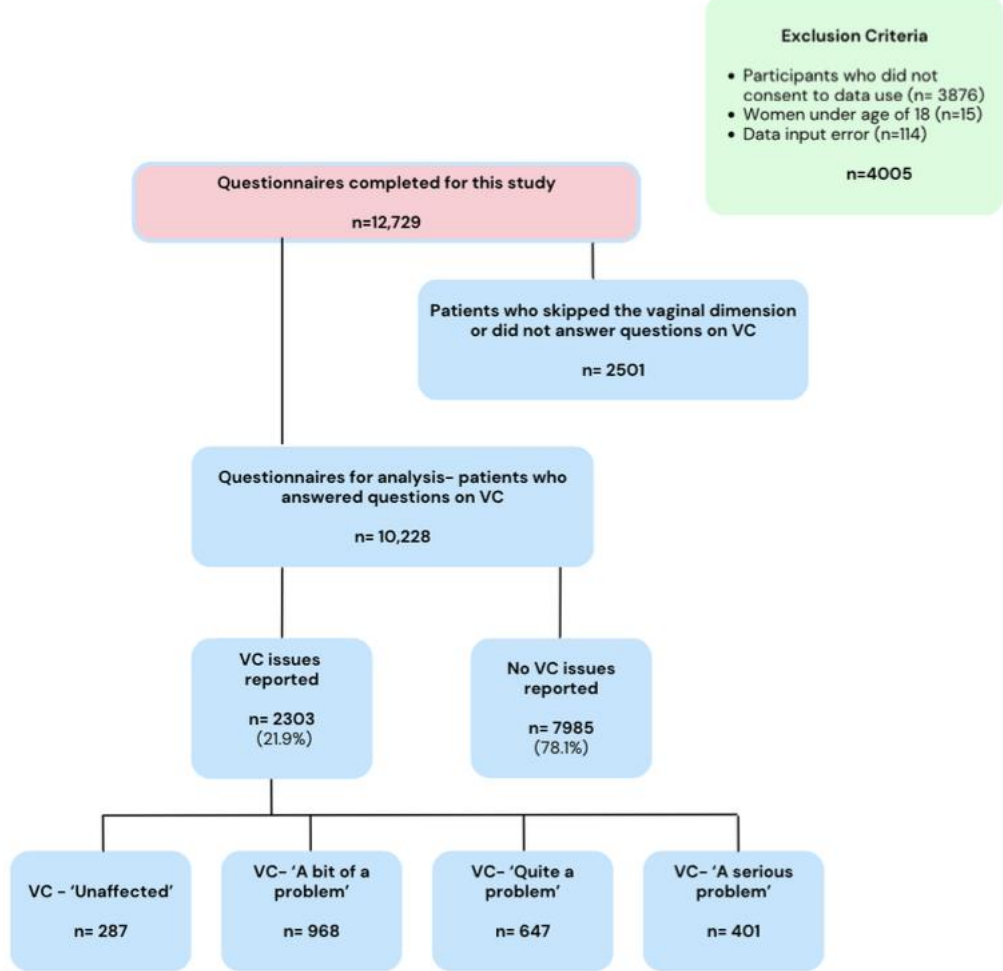


Figure 1: Inclusion and exclusion criteria.

21.9% of respondents reported VC issues out of 10,503 analysed responses.

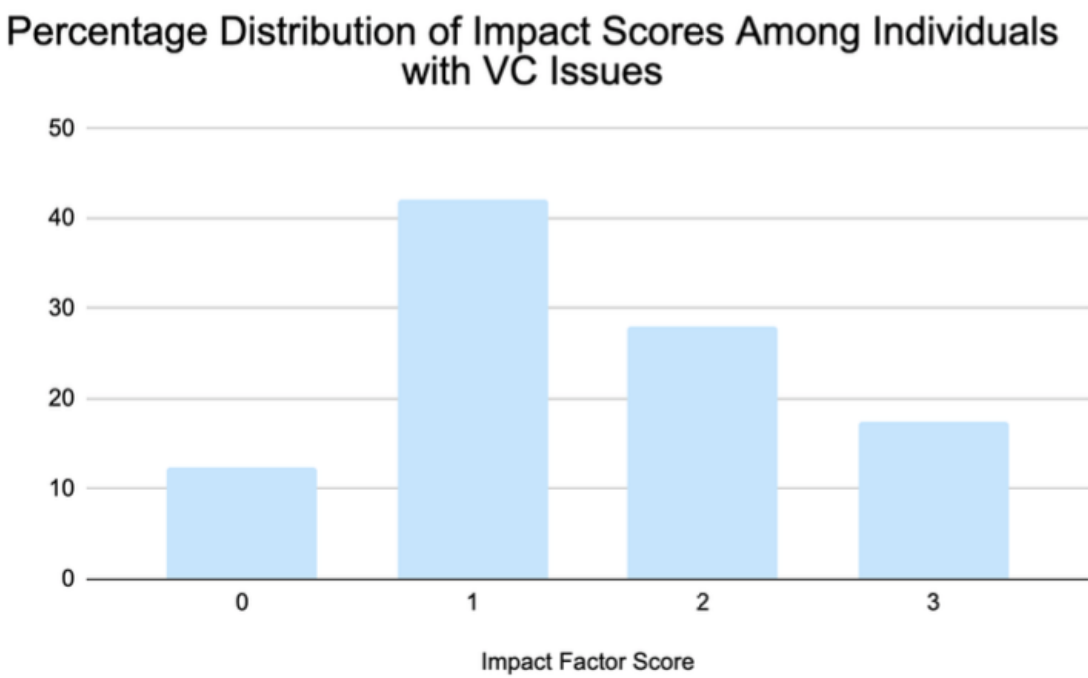


Figure 2: A graph showing the distribution of impact scores for people with VC issues.

87.5% of women described the symptoms as bothersome, ranging from mild to severe.

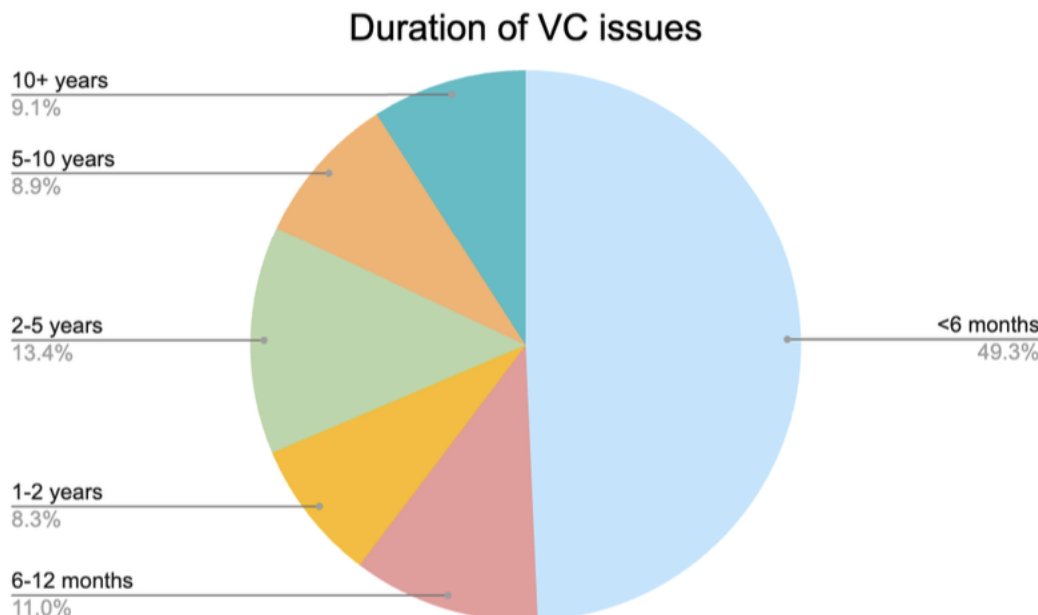


Figure 3: A pie chart showing duration of VC issues.

Thematic Analysis:



Figure 4: A word cloud demonstrating the most prevalent issues mentioned by women in free text.

Conclusions

Over 1 in 5 women attending urogynaecology clinics reported VC issues, confirming the hypothesis that these symptoms are prevalent and bothersome.

While VC symptoms were prevalent across all age groups, postmenopausal women reported the most severe impact on QoL, especially related to dyspareunia.

Younger women were more focused on maintaining sexual function and body image.

More studies should focus on longitudinal data, correlating subjective patient-reported outcomes with clinical findings to develop targeted interventions for managing VC symptoms.

References

1. Fernandes T, Costa-Paiva LH, Pinto-Neto AM. Efficacy of Vaginally Applied Estrogen, Testosterone, or Polyacrylic Acid on Sexual Function in Postmenopausal Women: A Randomized Controlled Trial. The Journal of Sexual Medicine [Internet]. 2014 May 1 [cited 2023 Apr 23];11(5):1262–70. Available from: <https://www.sciencedirect.com/science/article/abs/pii/S1743609515307669?via%3Dihub>
2. Basaran M, Rengin Kosif, Ülkü Bayar, Burak Civelek. Characteristics of external genitalia in pre-and postmenopausal women. 2008 Oct 1;11(5):416–21.