#714 THE POWER OF PELVIC FLOOR KNOWLEDGE IN WOMEN WITH URINARY INCONTINENCE

Uzelpasaci, E[1], Ozkutlu, Ö[1], Demir, E[2], Türkçapar, A F[3], Yıldırım Ü, N[1], Özdemir, Ö[3]

[1] University of Health Sciences, Gülhane Physiotherapy and Rehabilitation Faculty
[2] University of Health Sciences, Health Sciences Institute
[3] University of Health Sciences, Faculty of Medicine, Department of Gynecology and Obstetrics

Hypothesis / aims of study

Pelvic floor knowledge encompasses understanding the anatomy, function, and proper care of the pelvic floor muscles (1) . Limited awareness of these aspects may contribute to ineffective pelvic floor muscle function and suboptimal management of urinary incontinence (UI) (2). This study was aimed to investigate the relationship between pelvic floor knowledge level, pelvic floor muscle strength, UI severity, and pelvic floor symptoms in women with UI. By elucidating these relationships, we seek to provide valuable insights that can inform more targeted and effective interventions for managing UI and improving pelvic floor health outcomes. We hypothesized that pelvic floor muscle strength, incontinence severity and pelvic floor symptoms would improve as the level of pelvic floor knowledge increases in women with UI.

Study design, materials and methods

The present study was a cross-sectional study, which included women over the age of 18 who applied to the gynecology and obstetrics clinic with symptom of UI. Sociodemographics, clinic and obstetric characteristics of women who underwent routine follow-up in the gynecology and obstetrics clinic were recorded. Inclusion criteria were: age ≥ 18 years; being literate; not being pregnant or being more than 12 months postpartum; and having no neurological or psychiatric diseases. Women who did not volunteer to participate in the study and have previously received pelvic floor rehabilitation were excluded. To determine pelvic floor muscle strength, perineometric measurement (Figure 1) was performed with a vaginal probe, and resting and maximal voluntary muscle contraction were recorded. The Turkish versions of the Incontinence Severity Index (ISI), Pelvic Floor Health Knowledge Test (PFHKT) and Global Pelvic Floor Bother Questionnaire (GPFBQ) were used to determine UI severity, pelvic floor knowledge level and symptoms of bother and severity. Statistical analysis was performed using SPSS (ver. 25) program. Descriptive statistics were presented as mean±standard deviation, and number (percentage). Spearman's tests were conducted to test relationship between pelvic floor knowledge level, UI severity and pelvic floor symptoms. Statistical significance level was accepted as $p<0.05$.

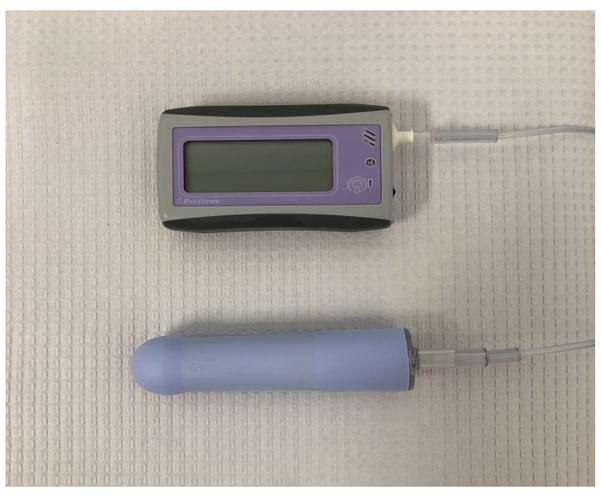

Figure 1. Perineometric measurement

Results and interpretation

Sixty-three women with UI were invited to participate of this study and five women were excluded from the study because they were pregnant. The mean of age and body mass index (BMI) of individuals participating in this study were 55.33 ± 12.22 years and 28.51±5.30 kg/m^2 . In our study, the percentage of stress UI was 24%, urge UI was 44.8% ,mixed UI was 31.2%. The mean of pelvic floor muscle resting and maximal voluntary muscle contraction score were 21.73±6.69 and 44.72±15.74. The mean of symptom duration was 71.75±71.64 months. The mean of PFHKT-total score, function/dysfunction, risk/etiology and diagnosis/treatment were 16.52±7.56, 3.81±2.11, 6.98±3.92 and 5.72±2.36; respectively. Additionally, the ISI and GPFBQ mean score were 7.60±3.59 and 18.34±6.44. There were negative, moderate correlation between PFHKT-total score (r=-0.487, p=0.005), PFHKT-risk/etiology subscale (r=-0.579, p=0.001) and pelvic floor muscle resting score. However, no significant relationship was found between PFHKT and maximal voluntary pelvic floor muscle strength, ISI and GPFBQ scores.

Interpretation of results:

The preliminary results showed that the resting score of the pelvic floor muscles decreases in women with UI, as the level of pelvic floor knowledge (total and risk/etiology) level increases. Although the knowledge level of women with UI regarding pelvic floor health is not related to maximal voluntary muscle contraction and the severity of incontinence, we can say that as women's knowledge level about pelvic floor health increases, their resting tone decreases.

Conclusions

Pelvic floor muscles are neglected by women because they are invisible muscles, and over time these muscles weaken, causing UI. Increasing women's knowledge and awareness of pelvic floor muscles can prevent and better manage UI. This study demonstrated the power of pelvic floor health knowledge level on pelvic floor resting tone in women with UI. While knowledge about pelvic floor health and its risks/etiology may have an influence on pelvic floor muscle resting scores, it does not seem to have a significant impact on other aspects such as voluntary muscle strength, UI severity, specific symptoms and bothers associated with pelvic floor dysfunction. These results highlight the complexity of pelvic floor health and suggest that while knowledge may influence certain aspects, additional factors likely contribute to variations in muscle strength and symptoms experienced by women with UI. Further research exploring these multifaceted influences is warranted to better understand and address pelvic floor health comprehensively.

References

1. Neels, H., Wyndaele, J. J., Tjalma, W. A., De Wachter, S., Wyndaele, M., & Vermandel, A. (2016). Knowledge of the pelvic floor in nulliparous women. *Journal of physical therapy science*, *28*(5), 1524-1533.
2. de Freitas, L. M., Bø, K., Fernandes, A. C. N. L., Uechi, N., Duarte, T. B., & Ferreira, C. H. J. (2019). Pelvic floor muscle knowledge and relationship with muscle strength in Brazilian women: a cross-sectional study. *International urogynecology journal*, *30*, 1903-1909.

Corresponding Author
Uzelpasaci, Esra
PT, Assist. Prof.
University of Health Sciences
Gülhane Faculty of Physiotherapy and Rehabilitation
e-mail: esra.uzelpasaci@sbu.edu.tr