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# IS THERE A CORRELATION BETWEEN PELVIC FLOOR MUSCLE STRENGTH AND FEMALE SEXUAL DYSFUNCTION? ANALYSIS OF HEALTHY NULLIPAROUS WOMEN

Hypothesis / aims of study

The standardization of pelvic floor muscle (PFM) strength in nulliparous as a predictive factor for urinary and sexual dysfunction is greatly relevant. However, this correlation is still not well established. PF muscle weakness may play a significant role in female sexual dysfunction (1). However, studies enrolled community- dwelling women have given evidence of pelvic floor disorders (PFDs) are not significantly associated with sexual activity or satisfaction. In other hand, a variety of factors appear to impact sexual function, and many of these factors may be more important than individual PFDs (2). Few studies have evaluated the correlation between the function of PF muscle and sexual satisfaction, and controversy still exists. The aim of this work was to correlate PF muscle strength with sexual function.

Study design, materials and methods

50 voluntary nulliparous women, mean age of 23 years, were studied. Demographic data such as physical activity, sexual disorders including discomfort or pain during intercourse, and satisfaction rate were evaluated using a clinical questionnaire. Body mass index (BMI) was measured and classified according to Garrow. Criteria of inclusion were: interest in participating as healthy volunteers, no urinary dysfunctions, and age between 20 and 30 years. All women, after signing the informed consent, were included in the protocol. The subjective evaluation of PFM was performed using transvaginal digital palpation (TDP). The PFM contraction was graded according to muscle force against the examiner's finger (3) (Table 1). Objective evaluation of PFM strength was made using a portable perineometer (Dynamed DM 01) connected to a balloon catheter, size 11x 2.6 cm, inserted into the vagina. The balloon should be 1 cm from the outside of vaginal conduit. In this way the middle of the balloon was placed 3.5 cm inside the introitus vagina. Measurements of maximum and mean squeeze pressure and holding period in seconds were assessed in four different positions: in lying position with straight limbs (P1), with bent limbs (P2), sitting (P3) and standing (P4). Only contractions with simultaneously visible inward movement of the perineum were accepted as correct (Fig. 2).

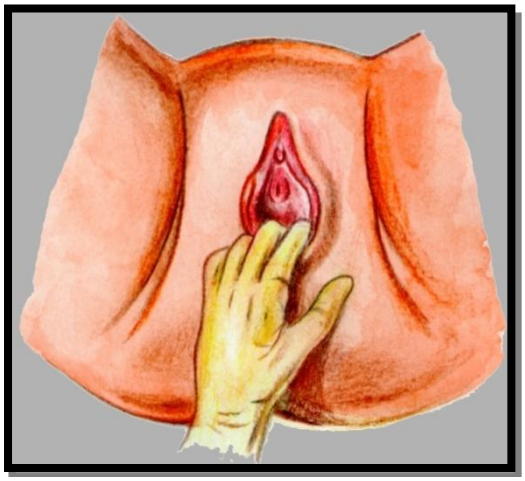

**Figure 1.** Illustration of Transvaginal Digital Palpation

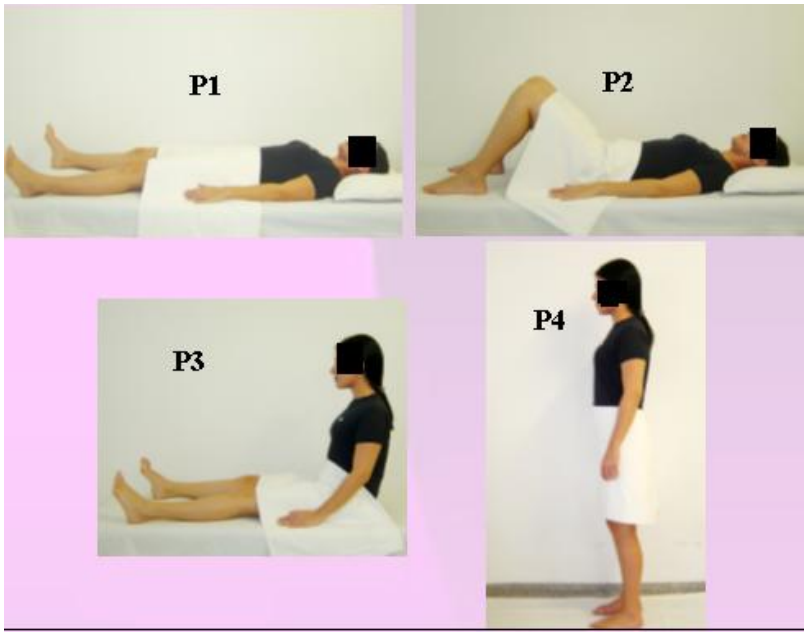

Figure 2. Illustration of different positions which (P1) lying position with straight limbs, (P2) with bent limbs, (P3)sitting and (P4) standing.

Results

Patients reported physical activity in 58% of cases, and 54% complained about intestinal constipation. On average, BMI was 21.76 kg/m$^2$. Sexual activity was reported by 84% of patients and 82% of them reported orgasm. No signicant correlation between TDP and the presence of orgasm was observed (p> 0.05). The objective assessment performed in 4 different positions did not correlate with the presence or absence of orgasm (p>0.05) (Table 2).

**Table 2.** Correlation between objective assessments of PF muscles (cmH2O) and orgasm presence.

| | Orgasm | |
|---|---|---|
| | **Present (18%)** | **Absent (82%)** |
| **P1** | 19.06 | 14.81 |
| **P2** | 17.33 | 17.57 |
| **P3** | 25.09 | 15.87 |
| **P4** | 33.87 | 35.37 |

Interpretation of results

Our findings suggest that the PFM strength in healthy nulliparous women did not independently affect the orgasm presence. Although the previous studies have confirmed lower rates of sexual activity in women of PFDs, however, there is no study until this moment correlating the normal pelvic floor function with orgasm presence. Marital status, menopause, hormone use, and lack of desire are the major determinants of sexual activity. A variety of factors appear to impact sexual function , and many of these factors may be more important than individual PFDs.

Concluding message

There was not signicant correlation between subjective and objective assessments of pelvic floor muscles strength and orgasm presence, demonstrating that the orgasm may not be associated with PFM strength in women without PFDs.

References


1. Beji NK, Yalcin O, Erkan HA. The effect of pelvic floor training on sexual function of treated patients. Int Urogynecol J. 2003; 14: 234-38
2. Lukacz ES, Whicomb EL, Lawrence JM, Nager CW, Contreras R, Luber KM. Are sexual activity and satisfaction affected by pelvic floor discords? Analysis of a community-based survey. Am J Obstet Gynecol. 2007; 88.e1-88.e6
3. Amaro JL, Moreira EH, Gameiro MO, Padovani PR. Pelvic floor muscle evaluation in incontinent patients. Int Urogynecol J Pelvic Floor Dysfunct. 2005;16:352-4



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| ***Is this a clinical trial?*** | **Yes** |
| ***Is this study registered in a public clinical trials registry?*** | **No** |
| ***What were the subjects in the study?*** | **HUMAN** |
| ***Was this study approved by an ethics committee?*** | **Yes** |
| ***Specify Name of Ethics Committee*** | **Comitê de Ética na Pesquisa** |
| ***Was the Declaration of Helsinki followed?*** | **Yes** |
| ***Was informed consent obtained from the patients?*** | **Yes** |