RESEARCH ARTICLE

Assessment of the pelvic floor in young women in the presence and absence of verbal instruction from a physical therapist

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Abstract:

Background: Pelvic floor muscle training is generally focused on muscular strength and endurance using exercise protocols with pre-established loads. However, 30% to 45% of women are not able to actively perform pelvic floor muscle contraction (PFM), even after being instructed. Therefore, identifying weakness in the ability to contract and relax these muscles can be important, even before the development of a possible dysfunction. **Objectives:** to analyze the ability to contract and relax the pelvic floor muscles in young women without pelvic complaints in the presence and absence of guidance from a physiotherapist. **Methods:** this is a descriptive, cross-sectional, controlled and randomized study. 28 female students from the Federal University of Delta do Parnaíba (UFDPar) participated in the study. The research participants were allocated into two groups: the control group (CG= 14 women) and the experimental group (GE=14 women). Both groups participated in a physiotherapeutic evaluation program and the PFM was examined through vaginal palpation (uni or bidigital). **Results:** In the functional assessment analysis, strength results were similar in both groups, with a mean value of 2,85 (±0,94) for the EG and 2,21 (±0,97) for the CG . In the functional assessment using the New Perfect Scheme and perineometer, no significant difference was observed between the groups regarding the degree of strength, repetition of maintained contractions, rapid contractions and intravaginal pressure (p>0,05). **Conclusion:** Despite the low self-perception and contraction difficulties observed, the study demonstrated that the group that received verbal instructions from the physiotherapist presented superior results in some important aspects of the functional assessment of the pelvic floor, such as muscular resistance and correct head movement.

Keywords: Pelvic floor; physical therapy; women's health.

BACKGROUND

The female pelvic floor (PF) is divided into anterior (bladder and urethra), middle (vagina) and posterior (rectum) compartments. Among the supporting components of the floor, the pelvic fascia, the pelvic diaphragm, and the urogenital diaphragm stand out. The main component of the pelvic diaphragm is the elevator ani muscle, which is divided into the coccygeus, iliococcygeus, pubovisceral, and puborectalis muscles[1].

The pelvic floor muscles (PFM) act synergistically with the abdominal and lumbar muscles, contributing to the control of the spine and pelvis. These muscles are activated during activities that increase intra-abdominal pressure. Pelvic floor muscle training (PFMT) is focused on PFM strength and endurance, based on exercise protocols and pre-established loads. This direction probably occurs due to the direct relationship between muscle strength and tissue stiffness (muscular and connective). However, 30% to 45% of women are not even capable of actively contracting PFM, even after being instructed[2].

Female PF dysfunction is a clinical condition that affects an increasing number of women each year, resulting in urinary incontinence, fecal incontinence, flatus incontinence, genital dystopias, lower urinary tract abnormalities, sexual problems, chronic pelvic pain and/or menstrual disorders[3]. Among these dysfunctions, urinary inconti-

nence is considered a serious public health problem[4], considered by the World Health Organization (WHO) as a disorder that affects more than 200 million people worldwide[5].

Despite this high prevalence, many women are unaware of the action of PFM, its function, and consequent dysfunctions. Scientific literature has shown an increase in physiological knowledge of the action of the PF and a reduction in PFM dysfunction in women who received an educational intervention associated with PFMT[6]. Therefore, for women to benefit from a training program, the awareness phase of the MAP action cannot be omitted[7].

Some women perform priority contractions of the synergist muscles of the PF (glutes, abdominals, and hip adductors) when they should primarily contract the PFM, suggesting a lack of coordination to activate the correct muscle. Therefore, therapeutic exercise protocols aimed only at training the PF's strength and resistance muscle functions may not be effective for the cases mentioned above, as deficiencies in other muscle functions, such as contraction capacity and coordination, may compromise the PF's capacity. muscle in generating force[8].

Therefore, identifying weakness in the ability to contract and relax these muscles can be important, even before developing a possible dysfunction. In Brazil, beliefs about sexuality and misinformation associated with factors such as education level and socioeconomic conditions mean that many women do not have access to quality information. Therefore, such dysfunctions tend to evolve and worsen, causing women to seek a health unit later, increasingly compromising their quality of life. Although there is currently a better development of the health model with a focus on prevention, there are still challenges to be overcome as for decades health was focused only on the treatment and rehabilitation phases[9].

Muscular functions are conceptually defined as "physiological functions performed by muscles" and represent a fundamental component of human movement, an object of study by physiotherapists. Therefore, regardless of the presence of symptoms, all women should have their PF evaluated by a qualified physiotherapist, preferably when they begin sexual activities[8].

According to Andrade et al. (2018)[10], in Brazil, there are no specific national programs to inform women about pelvic dysfunctions and the waiting list for consultation with a specialist through the Unified Health System (SUS) is generally long. Most primary health care providers are not prepared to deal with PF issues. For these reasons, any educational program that aims to inform the general population of women would be interesting. Studies indicate that the starting point should be quality information.

It is believed that there is not enough important information about the PF in women, from knowledge and identification to the capacity for muscle control to the dysfunctions caused. Since correctly contracting and relaxing the pelvic floor muscles is a fundamental prerequisite for muscle training and, according to the literature, these exercises prevent and treat various pelvic disorders, inform the public involved, and develop assistance for learning the ability muscle control can make a difference about the intimate health of these women[10].

The present study aimed to evaluate PFM function in healthy young women through verbal instruction from a physiotherapist compared with an informative instrument.

METHODS

Study setting

This is a descriptive, cross-sectional, controlled, and randomized study. Women who expressed interest in participating were allocated to a group before their initial assessment. Randomization was performed using computer-generated random numbers to assign participants to an experimental group (EG) and a control group (CG). The protocol

for this study was approved by the Research Ethics Committee involving Human Beings (CEP) of Federal University of Delta do Parnaíba - UFDPAR on May 15, 2023, under protocol nº. 6.058.708 by the guiding precepts of resolution 466/12 of the National Health Council (CNS). CAAE 69069423.1.0000.0192.

Female university students (n=28) from the Federal University of Delta do Parnaíba (UFDPar) were involved in this study, aged between 18 years and 35 years, with an active sexual life, healthy, without pelvic complaints, and able to respond to the questionnaires requested for participation and evaluation. of the study. Pregnant women or women suspected of being pregnant, women in the postpartum phase, health professionals, and/or women who had already undergone evaluation/treatment in pelvic physiotherapy were excluded from the study. The research was disseminated through folders on digital platforms as well as in print, and distributed within the university itself.

Initially, women who met the inclusion criteria and agreed to participate in the research were instructed and invited to sign the Free and Informed Consent Form. Next, a questionnaire was applied to obtain demographic aspects to characterize the sample, including age, profession, salary income, education, lifestyle habits, sexual life, gynecological and obstetric history, and marital status.

Then, the participants answered a semi-structured questionnaire adapted from Zanello et al (2022)[11] to verify their self-perception of the ability to contract the PFM and their characteristics. This questionnaire assesses the aspects of the degree of contraction, support, sustained contraction, rapid contractions, how difficult you consider it to be contracted, and use of accessory muscles. All of the items above have a subclassification of 6 aspects that vary from I can't do it to a maximum value according to each function investigated. Next, the women answered the Female Sexual Function Index (FSFI) questionnaire, which consists of 19 closed questions related to sexual activity in the 4 weeks before the exam to analyze the sexual function of these women.

The research participants were allocated to the CG (14 women) and EG (14 women). Both groups participated in a physiotherapeutic evaluation program and the PFM were examined through vaginal palpation (uni or bidigital), through a qualitative and quantitative analysis.

Muscle tone was assessed, and classified according to Frawley et al. (2021)[12], as normal, increased, and decreased. Power scores (P) were evaluated by maximum voluntary contraction and graded using the Modified Oxford Scale on a scale of 0 to 5. At the extremes, zero represents a condition in which no muscle contraction is noticeable and 5 represents a strong contraction. in which there is compression and elevation of the fingers against strong resistance from the examiner. Endurance (E) was assessed by asking the patient to contract the perineal muscles for as long as possible, with the measurement given by counting the time the contraction was sustained until a 50% reduction in the maximum voluntary contraction occurred. The number of repetitions of maintained contractions, considered as repetitions (R), was obtained by requesting sustained maximal voluntary contractions, with 4 seconds of rest between them, and the number of repetitions/quick/fast contractions (F) obtained from the contraction and relaxation without support for up to 10 seconds[13].

According to Driusso & Beleza (2023)[14], a scale identified as the gold standard for assessing the PF was not found. Due to the subjectivity of vaginal palpation, it is recommended that, in scientific research, objective measurements of muscle function be associated, such as manometry, dynamometry, and/or electromyography. Thus, for quantitative analysis, the Quark Médico Biofeedback clinical perineometer (Quark Produtos Médicos, Mendes e Barbosa Produtos Médicos, Piracicaba, Brazil) was used in this study, which demonstrates these intensities through a linear pressure scale represented by a luminous scale of LED's, with this device having its individualized programming for each participant based on the data collected in the previous evaluation item.

For the CG, each participant received a printed explanatory folder prepared by physiotherapists based on scientific evidence, guiding what would be evaluated and what should be done. The interpretation of the folder was individualized, so the participant performed the movement in the way she understood after reading the material that was initially delivered. The women in the EG received verbal instructions from the examiner, before and during the execution of the PF contraction and relaxation movement, as well as during the use of the perineometer.

For comparison between groups, the statistical program SPSS Statistics version 21 (Statistical Package for the Social Science, IBM, USA) was used. For numerical variables, the Shapiro-Wilk normality test was initially performed to investigate the sample distribution and choose the most appropriate statistical test. All numerical variables presented a distribution different from normal, therefore the test of choice for comparing non-dependent samples was the Mann-Whitney U Test, considering a significance level of $p<0.05$. For the other variables, descriptive statistics analysis was used in frequencies and representation in percentages.

RESULTS

Initially, 43 people showed interest in participating in the research. The study flowchart (Figure 1) shows the number of dropouts, as well as the number of women who were excluded after an analysis of the questionnaire applied. After randomization to the CG and EG, 28 young university students underwent a physical examination. Table 1 presents the socio-demographic data of the participants. It can be observed that about the characteristics evaluated, both groups are similar in terms of age, education, occupation, and income. The average age did not show a significant difference between the groups.
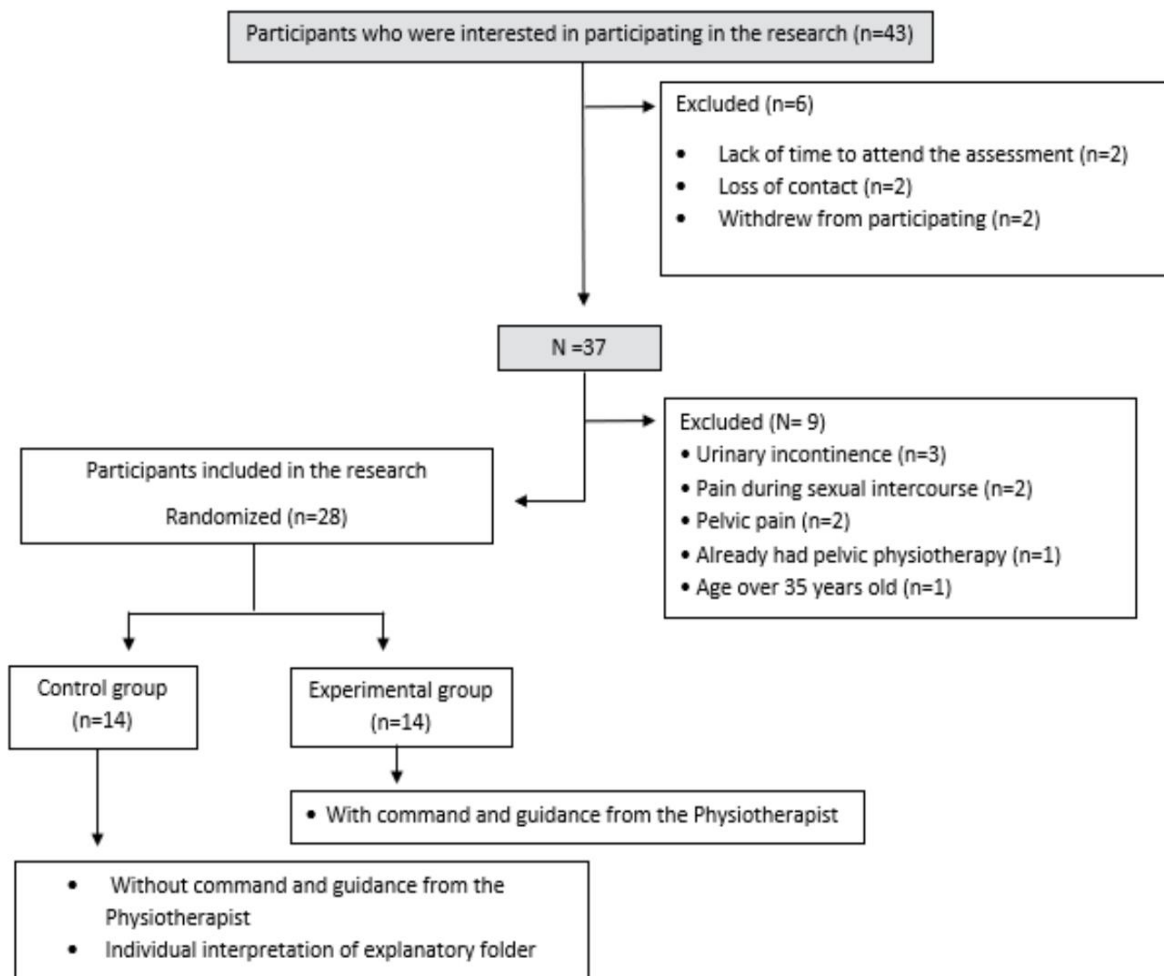

Figure 1. Drawing of the flow of participants during the research

Table 1. Socio-demographic characteristics of the participants

Variable		Research participants (n=28)	
		CG (n=14)	EG (n=14)
Age (average DP)	18-35	22,35 ± 3,27	23,42 ± 2,56
Ethnicity	White	50%	28,57%
	Black	14,28%	28,58%
	Brown	35,71%	42,85%
Education	Complete higher education	-	7,14%
	Higher level Inc	100%	92,85%
Ocuppation	Work	14,28%	7,14%
Profession	Does not work	85,71%	92,85%
Monthly income	No income	42,85%.	35,71%
	Up to 1 minimum wage	50%	50%
	From 1 to 3 minimum wages	7,14%	14,28%

An assessment of self-perception of the PF was also carried out, using the semi-structured questionnaire on self-perception of the ability to contract the PFM[11]. At the end of data collection, after the seven days of the first intervention, the participants responded to the same questionnaire again. The responses regarding the groups and the results of pre and post-orientation before and after are found in Table 2.

Table 2. Assessment of self-perception of pelvic floor muscles contraction

Self-perception of contraction *				
	EG (before)	EG (after)	CG (before)	CG (after)
Degree of contration				
Outline	14,28%	14,28%	7,14%	21,42%
Weak	35,71%	14,28%	7,14%	7,14%
Moderate	35,71%	42,85%	64,28%	42,85%
Good	14,28%	28,57%	14,28%	28,57%
Strong	-	-	7,14%	-
Suport				
I don't know	14,28%	7,14%	7,14%	-
I can't	-	7,14%	-	-
1 to 3 econds	57,14%	42,85%	42,85%	42,85%
4 a 6 seconds	14,28%	42,85%	35,71%	50%
7 a 9 seconds	7,14%	-	7,14%	-
10 seconds	7,14%	-	7,14%	7,14%
Sustained contraction				
I don't know	21,42%	7,14%	14,28%	7,14%
I can't	-	7,14%	-	-
1 to 3 repetitions	35,71%	57,14%	42,84%	28,57%
4 a 6 repetitions	28,57%	28,57%	28,57%	57,14%
7 a 9 repetitions	7,14%	-	7,14%	-
10 repetitions	7,14%	-	7,14%	7,14%
Fast contractions				
I don't know	21,42%	14,28%	28,57%	14,28%
I can't	7,14%	7,14%	7,14%	-

1 to 3 repetitions	28,57%	35,71%	28,57%	21,42%
4 a 6 repetitions	35,71%	28,57%	28,57%	42,85%
7 a 9 repetitions	-	14,28%	-	-
10 repetitions	7,14%	-	7,14%	21,42%
How difficult do you find it to contract				
Very easy	-	-	-	7,14%
Easy	21,42%	28,57%	14,28%	14,28%
Neither easy nor difficult	28,57%	28,57%	14,28%	35,71%
Difficult	42,85%	42,85%	57,14%	28,57%
Very difficult	-	-	14,28%	14,28%
I don't know	7,14%	-	-	-
Acessory musculature				
No, I do it in isolation	14,28%	21,42%	7,14%	14,28%
Yes, abdominal muscles	7,14%	21,42%	50%	42,85%
Yes, adductor muscles	-	7,14%	-	14,28%
Yes, glutes	64,28%	35,71%	35,71%	7,14%
Yes, I perform apnea	7,14%	7,14%	7,14%	21,42%
Yes, I perforlike outhers not mentioned	7,14%	7,14%	-	-

They were also asked about the importance of the research for body and perineal self-knowledge, as well as whether the participants would do Physiotherapy for the PF or recommend it to other people. In these aspects, all women considered the topic important and also showed interest in both undergoing Physiotherapy and recommending it to other women.

After the physical assessment, in the CG most participants maintained a moderate degree of strength (42,85%) in self-perception, however, an increase in the degree of draft strength (21,42%) was observed, as well as an increase in good strength degree (28,57%). In the EG, the majority of participants maintained a moderate level of strength (42,85%), however, it was observed that there was an increase in the level of good strength (28,57%). Regarding support, in the CG most women sustained 4 to 6 repetitions (50%) and in the EG the responses were more equivalent in the intervals of 1 to 3 seconds and 4 to 6 seconds (42,85%). Regarding rapid contractions, most participants in the CG were able to perform around 4 to 6 repetitions (42,85%), while in the EG most of them were able to repeat around 1 to 3 times (35,71%).

To assess sexual function, the FSFI questionnaire was applied. This instrument evaluates the response in the six domains of desire, excitement, lubrication, orgasm, satisfaction, and pain. At the end of the questionnaire, a total score is presented, which is the result of the sum of the values of the questions, multiplied by a factor that homogenizes the influence of each domain on the total score and, then, adding the values of each domain. It should be noted that this factor is defined by the instrument itself. The total score can vary between 2 and 36 points, however, a cut-off point is defined (26 points), also described by the instrument itself, where values equal to or below this point indicate the presence of sexual dysfunction[15].

Analyzing the responses presented to the FSFI questionnaire, it was observed that the average total score of university women members of the EG was 25,20 points and the CG score was 23.88 points, with the general prevalence of sexual dysfunction among the participants. In both groups, the domains identified as most affected were "desire" EG (3,12), CG (2,87);" excitement "EG (3,51), CG (3,55), and "satisfaction" EG (3,08), CG (2.45). This last domain presented the lowest average among all domains. Regarding FSFI, there was no significant difference between the groups (Table 3).

Table 3. Analysis of the Female Sexual Function Index questionnaire score

Female Sexual Function Index (FSFI) (n=28)			
Domain	Question	Average (EG)	Average (CG)
Desire	1-2	3,12 ± 2,87	0,54
Escitment	3-6	3,51 ± 3,55	0,80
Lubrification	7-10	4,84 ± 4,80	0,71
Orgasm	11-13	4,62 ± 4,42	0,63
Satisfacion	14-16	3,08 ± 2,45	0,57
Pain	17-19	6,00 ± 5,77	0,94
FSFI (TOTAL)		25,20 ± 23,88	> 0,05

As for muscle tone, in both groups, the majority of women had normal tone (CG 85,71% and EG 64.28%). Increased tone was identified in 14.28% of women in the CG and 35,71% in the EG, while reduced tone was identified only in the CG (7,14%). The functional assessment using the New Perfect Scheme and the perineometer showed no significant difference between the groups regarding the degree of strength, repetition of maintained contractions, rapid contractions, and intravaginal pressure (p>0.05). In Table 4 it is possible to analyze the mean and standard deviation of these data. However, when comparing the sustaining time of PFM contraction (endurance) between the control and experimental groups, it can be seen that there was a significant difference (U=155.500, p<0.05), wherein the EG the time was greater than in the GC (Fig. 2).

Table 4. Assessment of the pelvic floor muscles of all volunteers

New Perfect Scale and Perineometry Assessment (n=28)					
	Average (DP)- EG			Average (DP) - CG	
Power	2,85 ± 0,94			2,21 ± 0,97	
Endurance**	4,71 ± 2,30			2,42 ± 1,60	
Repetition	2,07 ± 1,11			2,57 ± 2,65	
Fast	4,28 ± 3,58			5,35 ± 2,81	
Perineometer (mmHg)	20,09 ± 12,88			17,66 ± 16,46	
	Present	**Absent (%)**		**Present**	**Absent (%)**
Elevation	64,28%	35,71%		42,85%	57,14%
Co-contraction	78,24%	21,42 %		64,28%	35,71%
Timing	92,85%	7,14%		64,28%	35,71%

**p< 0,01

Independent Samples Group
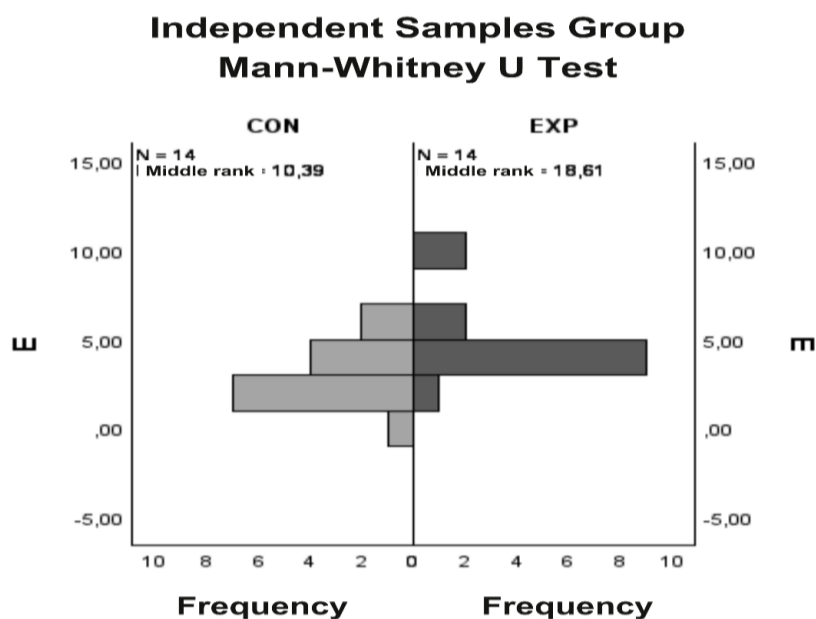## Mann-Whitney U Test

Figure 2. Statistical analysis of the sustained time of the pelvic floor muscle contraction (Endurance)

DISCUSSION

The present study aimed to evaluate PFM function in healthy young women without pelvic complaints through command with verbal instruction from a physiotherapist compared with an informative instrument. In general, the studied population presented a low self-perception of PFM contraction. In the EG, around 35,71% presented a correct self-perception of the contraction intensity. However, the majority of CG participants (64,28%) presented a moderate self-perception, as this result was not in agreement with that of the examiner, who identified the prevalence of weak contraction in the CG.

Even after the second assessment, self-perception about strength still remained far from reality for both groups ("moderate" strength 42,85% and "good" strength 28,57%), which confirms the data pointed out by Barros et al. (2022)[12] who state that a significant proportion of women are not even capable of actively contracting their PFM, even after being instructed. According to the analysis of the FSFI questionnaire, both the CG and EG had scores lower than 26 points (CG: 23,88; EG: 25,20) which, according to the literature, confirms that university women have some type of sexual dysfunction. The values were statistically similar in both groups with greater emphasis on the domains of satisfaction, desire, and excitement. Such results were also evidenced in the study by Trindade da Silva & Damasceno (2019)[16] where it was demonstrated that reducing one of the stages of sexual response further reduces the chances of these women reaching orgasm, triggering a decrease in desire and desire. sexual interest.

Still, in the same study, it was shown that the reduction of desire can occur due to lack of stimulation before the act of penetration, thus creating difficulties for these women, in addition to being excited, to remain lubricated throughout sexual intercourse and consequently have greater desire and finally reach orgasmic phase. These changes can make it difficult or obstruct the achievement of orgasm, generating an unfinished cycle of female sexual response. This pattern, often linked to discomfort, leads to a reduction in sexual interest among female university students.

In the analysis of the functional assessment, the strength results were similar in both groups, with an average of 2,85 (±0,94) and 2,21 (±0,97) EG and CG, respectively. Furthermore, both groups had low holding times and poor sustained repetitions. These data demonstrate that young people, even healthy people without pelvic complaints, have difficulty voluntarily contracting their PFM. A possible explanation is the lack of knowledge about the action of these muscles, as shown in the study by Blanchard et al. (2021)[17] in which only 6.30% of women knew what the PF is and 15,20% its location.

On the other hand, it is possible to see that the EG presented significantly better results in terms of endurance (contraction sustaining time) compared to the CG. According to Frawley et al. (2021)[12], a shorter duration contraction suggests lower muscular resistance. The duration of the contraction can be used as an indication of resistance, for example, a longer contraction is related to better resistance.

In this study, a notoriety was observed about the degree of strength of the PFM. Despite not showing a significant difference, a difference was observed in the values between the groups analyzed, highlighting the EG which presented higher indices, as detailed in Table 4. It is important to highlight that the assessment of the degree of strength is subjective, as previously found. in the study by Nascimento (2009)[18], highlighting the need for standardized instruments to evaluate the PFM. This would allow for a uniform assessment for all women considering their respective levels of strength.

The analysis of the subjectivity of the degree of strength and functionality is corroborated by the assessment of elevation. According to Frawley et al. (2021)[12], a contraction is felt as an action of squeezing, lifting, and squeezing under the examining finger, being classified as correct when there is cephalic and ventral movement. Therefore, although the average degree of strength between the groups was not significant, the EG showed a higher percentage of increase (64,28%) compared to the CG (42,85%). This suggests that perhaps verbal instruction has a greater contribution to achieving maximum voluntary contraction, however, more studies must be carried out.

According to new recommendations from the International Continence Society (ICS) on terminology for assessment of the PFM, the instruction to perform a maximal voluntary contraction is part of the clinical assessment checklist of the PFM applicable to signs and investigations. According to this document, it is advisable to provide details of the instruction (contraction, number of repetitions, and rest between repetitions) to ensure that the test can be reproduced as a maximal voluntary contraction.

Associated with the results of vaginal palpation, in this study a perineometer was used to investigate the pressure peak during a maximum voluntary contraction. According to Frawley et (2021)[12], as the measured pressure does not confirm its origin, it is important to guarantee the validity of the intravaginal measurement by observing the aspects, (1) perform vaginal palpation before using the pressure gauge to ensure that the patient can contract correct your PFM, (2) observe the cranial movement of the vaginal probe during measurement of muscle contraction, and (3) ignore contractions associated with elevated intra-abdominal pressure (e.g., Valsalva maneuver), muscle contraction of the hip or any movement of the pelvis. In this study, all these recommendations were followed.

Angelo et al. (2017)[19] proposed a five-degree scale for perineometer values, corresponding to the modified Oxford scale values. According to the proposed scale, values between 7,5 and 14,5 cmH2O correspond to very weak pressure, values between 14,6 to 26,5 cmH2O represent weak pressure, and values between 26,6 to 41,5 cmH2O represent pressure moderate, while values from 41,6 to 60,5 cmH2O represent good pressure and values above 60,6 cmH2O correspond to strong pressure. However, as this scale has not yet gone through the validation process, caution is needed when interpreting the study results and when applying the results in clinical practice.

Riesco et al.[20] verified agreement in the results obtained between bidigital vaginal palpation and the Perina 996-2 manometer, suggesting that these methods can be used to evaluate the function of the PFM, when used by experienced professionals.

As in the study conducted by Silva et al. (2020)[21], a high correlation was observed between the results of the assessment of the maximum voluntary contraction of the PFM through uni and digital palpation and manometry, the present study also verified agreement in the results obtained between vaginal palpation and the perineometer. The EG obtained 20,09 mmHg and the CG 17,66 mmHg as an average value on the perineometer, thus showing that both groups presented weak contraction of the PFM.

Therefore, it is suggested that these methods can be used to evaluate the function of the PFM when used by experienced professionals.

However, this study revealed that all women evaluated in this study, regardless of the group, showed weakness in indices of strength, endurance, repetition of sustained contractions, and use of accessory muscles. These women, despite being young and not presenting pelvic complaints, presented a functional change in the PFM. These results corroborate previous research that associated the difficulty in activating the PFM with a lack of knowledge about the perineal region. Furthermore, this lack of knowledge makes it difficult for women to recognize the signs and symptoms of dysfunction, resulting in a reduction in the search for and adherence to treatment programs[22-25].

It is important to highlight that the women in the CG had a good understanding and understanding when reading the folder, as they were able to perform the contraction of the PFM just by reading the written instructions and commands, without any verbal intervention from the examiner. It is also worth highlighting that the material contained in the folder was prepared by professionals in the field based on updated scientific evidence, in which all the commands contained therein were similar to those spoken by the physiotherapist during the GE assessment.

Continuing with this last topic, Andrade et al. (2018)[10] stated that the close link between educational information on intimate health, including hygiene care, the action of the PFM, and sexual dysfunction, among other issues related to women's health, is alarming, as this is a complex problem, however, there is the possibility of spreading information. Another study also by Andrade et al (2018)[10] showed that general knowledge of intimate health resulted in a reduction in PF dysfunction after the associated educational intervention.

In this way, informative material in Physiotherapy aimed at women's health plays a crucial role, highlighting that, in certain circumstances, direct professional guidance may not be strictly necessary. Thoroughly prepared information can sometimes meet needs by offering adequate support for the desired objective. Therefore, it was possible to observe that other methods are effective in learning how to contract the PFM. In addition to being low-cost and can be prepared by trained health professionals.

This study was limited by the small number of women involved, as more comprehensive research could present larger and more significant differences about some points investigated, such as the results of aspects of functional assessment and sexual function. Also, another limiting factor was the lack of a negative control group, as there was no group without intervention.

CONCLUSION

The result of this study suggests that proper mentoring of college women results in significant PF activation. Despite the low self-perception and contraction difficulties observed, the study demonstrated that the group that received verbal instructions from the physiotherapist was superior in some important aspects of the functional assessment of the PF, such as muscular resistance and correct head movement during contraction. However, it is worth highlighting that reading the explanatory folder facilitated the understanding and execution of the contraction of the PFM in women in the CG. This highlights the effectiveness of alternative, low-cost methods developed by qualified professionals. The results of this research also reveal a high incidence of sexual dysfunction in university women, identified in both groups studied. These findings reinforce previous research that associates the reduction in sexual response stages with orgasmic difficulties and decreased sexual interest.

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