#536 - REMOTE HEALTH EDUCATION PROGRAM ON KNOWLEDGE AND SYMPTOMS OF URINARY INCONTINENCE: RANDOMIZED CLINICAL TRIAL

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Hypothesis / aims of study

In the digital era, exploring alternatives to deliver educational information may enhance access to and adherence to urinary incontinence (UI) treatment. As audiovisual tools, educational videos can spark curiosity and interest, making them a viable option for health promotion due to their easy applicability[9].

Considering the limited access of most of the population to first-line treatment, the present study aimed to evaluate the effects of a video health education program entitled “Educa Mulher,” delivered through videos on UI knowledge, on the improvement of urinary symptoms and severity in incontinent women.

Study design, materials and methods

Controlled, single-blind, randomized clinical trial with parallel group design. The project was approved by the Research Ethics Committee of the University of Pernambuco (UPE) and was registered on the Brazilian Clinical Trials Registry platform under number: U1111-1231-9711, and written by the recommendations of the Consolidated Standards of Reporting Trials (CONSORT).

Women were included with complaints of urinary loss, over 18 years of age, who did not report or present any psychiatric disorder, cognitive deficit, neurological or disabling diseases, who were not pregnant or had last given birth less than a year ago, and who had not undergone previous surgery for UI correction in the last five years, who had never undergone pelvic floor muscle training (PFMT), who knew how to read, write, and understand the Portuguese language, and who had WhatsApp and internet access.

The randomization was generated by a researcher not involved in the screening and interviews, using a website. The allocation process was carried out using opaque envelopes, in which randomization occurred at the end of the application of the instruments, through a hidden sequence.

The randomization and allocation of volunteers were carried out into 2 groups: the Control Group (CG) and the Experimental Group (GE). The volunteers allocated to the CG received an explanatory folder about UI, while the volunteers allocated to the GE participated in the Remote Program and received, in addition to the explanatory folder, educational videos about UI.

Additionally, an outcome assessor was blinded, who was blind to randomization, allocation of participants into their respective groups, execution of the Remote Program, data tabulation, and statistical analysis. The volunteers were evaluated before and after the intervention.

The volunteers allocated to the GE participated in a weekly educational activity by sending videos via WhatsApp lasting 1 to 4 minutes, for a month, totaling 4 weeks of intervention. The videos covered various topics, including knowledge about UI, the anatomy of the PFM, their functions and dysfunctions, risk factors, impacts on quality of life, treatment options, guidance on PFMT, and challenges in UI treatment.

PFMT was demonstrated in the videos. A simple protocol was developed, consisting of 10 maximal contractions per day, performed upon waking while lying supine with legs flexed. Each maximal contraction should be sustained for 6-seconds, with 12-second intervals between contractions, followed by 5 quick contractions[4].

Participants were encouraged to perform PFMT in progressively challenging positions, starting with lying supine, then seated, then on 4-point kneeling, and finally standing up. The participant should adopt one position daily and advance to the next position when they feel comfortable.

The instruments used were: The prolapse and Incontinence Knowledge Quiz (PIKQ)[2], the International Consultation Incontinence Questionnaire – (ICIQ-SF)[3], and the Incontinence Severity Index (ISI)[4]. All are validated for Portuguese-Brazil.

The sample size calculation was based on the ability to detect significant interaction effects within the mixed models using the following criteria: small effect size = 0.23; alpha= 5%; power= 90%; two groups; two assessments, with a minimum number of 46 individuals (23 per group).

The data were analyzed using the Jamovi program. For the variables knowledge, urinary symptoms, and severity, mixed linear models were used for intergroup and interaction comparisons, as well as Bonferroni post-hoc for multiple comparison adjustments. Analyzes were performed following the intention to treat. The Confidence Index of 95% and p-value <0.05 were adopted.

Results

A total of 124 women showed interest in participating in the study. Of this total, 49 were excluded, and 75 were eligible to participate (Figure 1).

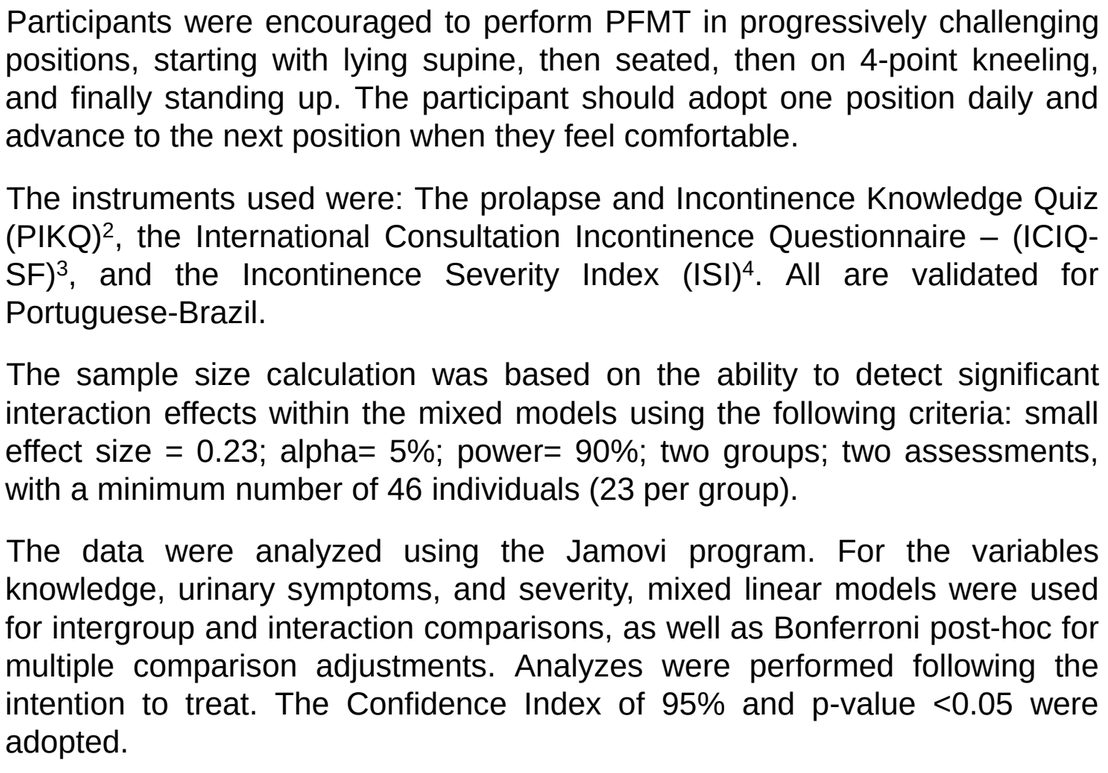

Figure 1. Recruitment and flow of participants through the trial.

Results and interpretation

The mean age of participants was 42.93 ± 10.33 years. At baseline, all participants presented high urinary loss, moderate severity of the UI, and high UI knowledge. Table 1 shows the mixed model regression between groups and interaction regarding the scores of PIKQ-Br, the ICIQ-SF, and the ISI. No statistical differences were found between groups or interactions. PIKQ-Br showed no difference or changes in scores after the intervention. However, both groups demonstrated a high level of knowledge regarding the theme at baseline.

Table 1 – Mean (SD) outcomes of the control and experimental groups' baseline and after intervention (one month).

Instruments	Control Group		Experimental Group		P-value		
	Baseline	After	Baseline	After			
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Group	Moment	G x M
PIKQ	9.42 (4.06)	9.32 (3.28)	9.42 (4.14)	9.75 (4.19)	0.616	0.425	0.123
ICIQ-SF	12.06 (9.37)	9.97 (8.03)	11.68 (8.16)	10.16 (7.24)	0.932	**0.001**	0.525
ISI	5.93 (5.50)	4.94 (4.13)	5.72 (5.70)	5.18 (4.83)	0.953	**0.004**	0.397

Abbreviations: G (group); M (moment); G x M (interaction).

Table 2 shows within- and between-group differences at follow-up for PIKQ, ICIQ-SF, and ISI. The results show no difference in PIKQ scores. There is a difference between ICIQ-SF and ISI scores in both groups only in within-group analyses. In the control group, a value of -2.09 in ICIQ-SF and -0.98 in ISI was observed, and in the experimental groups, the values were -1.51 and -0.53, respectively.

Table 2 – Mean (SD) outcomes within- and between-groups difference (95% CI) for PIKQ, ICIQ-SF, and ISI.

	PIKQ	ICIQ-SF	ISI
Within-group differences			
Follow-up – baseline			
Control Group	-0.10 (-0.49; 0.29)	**-2.09 (-3.30; -0.88)**	**-0.98 (-1.89; -0.08)**
Experimental Group	0.32 (-0.04; 0.69)	**-1.51 (-2.70; -0.33)**	**-0.53 (-1.17; -0.09)**
Between-group differences			
Follow-up	-0.42 (-1.38; 0.52)	-0.19 (-2.20; 1.83)	-0.24 (-1.37; 0.89)

The findings indicated that using educational videos in an educational health program did not improve urinary symptoms or severity compared to using an educational folder. Although there was a slight decrease in the ICIQ and ISI scores after the intervention, no clinically significant differences were achieved.

The success of PFMT depends on the adequate contraction of PFM. It is a consensus that oriented and supervised training have more efficient results than non-supervised training[5-6]. This could be the reason why no differences were found in the present study, considering that women only oriented remotely using videos. On the other hand, supervised in-person treatment is not a reality for most women. Therefore, alternative strategies should be offered considering the benefits of performing PFMT[5-6].

During data collection, it was observed that most of the participants in the EG demonstrated little interaction with the researchers. Even though they received notifications on WhatsApp, doubts or questions were not frequent. Therefore, knowing the women's adhesion to the videos was not possible.

This study was conducted with women in their forties, who often have multiple demands with children, work, and household chores. Their lack of free time may justify the lack of prioritization of the PFMT protocol, thus interfering with adhesion and improving UI symptoms. In addition, data collection occurred during the COVID-19 pandemic, which caused women to be overloaded with household chores and children.

Conclusions

A remote health education program using educational videos via WhatsApp combined with an educational folder was not more efficient in improving knowledge about UI (PIKQ-Br), urinary symptoms (ICIQ-SF), and urinary severity (ISI) than the use of an educational folder.

References

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