

Chidiebele P Ojukwu, 2021 Abstract

Determining Urine Flow In Stress Incontinence Utilizing EMG

Objective

The study used **electromyography (EMG)** to help evaluate if imagining interrupting the flow of urine actually elicits contractions of the pelvic floor muscles (PFM) in stress-incontinent postpartum women.

Results

PFM activities significantly varied across the four trials used in the study, with ‘imagination of interrupting urine flow’ eliciting the least muscular activity and ‘abdominal bracing with hip adduction’ eliciting the highest activity. The study showed that utilizing many contraction techniques during Kegel’s education is more effective compared to educating patients with one contraction technique.

Participants and Researchers

Participants were 21 postpartum women (aged 23 to 40 years) with recent vaginal deliveries. All the participants had a postpartum history of stress incontinence.

The researchers were from the College of Medicine, University of Nigeria, Nsukka, Enugu State, Nigeria: *Chidiebele P Ojukwu, Adaora J Okemuo, Precious C Orji, Anne U Ezeigwe, Stephen S Ede and Chidinma G Mba*, Department of Medical Rehabilitation; *Ikenna T Ikele and Augustus U Ugwu*, Department of Anatomy; and *Onyinye V Okide*, Department of Physiology.

Methods

The participants performed four trials of Kegel’s exercises, each prompted by a different contraction technique. PFM activities were measured with **surface electromyography (sEMG)** via a vaginal electrode. Inferential statistics of repeated-measures one-way analysis of variance with Bonferroni *post hoc* analysis were performed to compare the effective recruitment of the PFMs across the four trials.

The **sEMG** was performed with a **NeuroTrac MyoPlus2** device (Verity Medical) using vaginal electrodes for **EMG** biofeedback to record the activities of the PFMs while signals of the electrical activities were displayed on a linked laptop via the **NeuroTrac** software (v5.0.117). **EMG** data was virtually expressed, normalized and expressed as a percentage of the peak activity during each trial.

The full abstract can be found at

https://www.researchgate.net/publication/353958183_Does_imagining_interrupting_the_flow_of_urine_really_elicit_contractions_of_the_pelvic_floor_muscles_in_stress-incontinent_postpartum_women