
Aim:
1. To study whether a higher or lower frequency pelvic floor muscle training (PFMT) program is superior for the treatment of stress incontinence (SUI)
2. To measure changes in levator ani muscle strength/morphometry, quality of life, and patient reported improvement in both groups after treatment

Study Design:
Randomized parallel control study of 71 subjects- mean age 40 years +/- about 9 years, >80% with regular periods, average parity ~2
Two groups- performed a combination of core/hip/pelvic floor muscle exercises- see Table 2 for details

- **note- paper states the evidence supports stabilization/pelvic floor exercises for treatment of UI and provides one reference from 2012** the literature is mixed and we do not have strong evidence for one specific type of pelvic floor muscle training over another for all those with SUI

High frequency group: 5x/week, 30 min/day- 900 PFM contractions/week
Low frequency group: 2x/week, 15 min a day- 180 PFM contractions/week
Subjects strength/endurance measured with perineometer and palpation (PERF score-repetitions 3 second holds instead of holding as long as endurance measure)
Levator Hiatus area and diameter measured with 3D/4D US

Results:
Improvements in all outcome measures were superior in the high frequency group
Note- in low frequency group- ICIQ-UI SF scores decreased by less than one point and incontinence episodes decreased by 2.9 incidences (from 9.31 to 6.38).

Discussion:
The study supports higher frequency PFMT to decrease incontinence and improve symptoms/QoL
Strength/morphometry measures also support a higher frequency training program
-Note decreased levator hiatus area at rest post treatment is not seen in Antônio article that we will discuss
Strengths/weaknesses:
Use of palpation to identify levator avulsion? Or did they use US (not clear). No avulsions in group of 71 Subjects with >80% of subjects having had vaginal delivery?
Valsalva used to assess prolapse (likely meant bearing down)- was a POP-Q measure performed and was prolapse assessed via other measures?
They stated no prolapse was present? How did they define prolapse?

Conclusion/Summary:
Intensive pelvic floor muscle training + stabilization exercises lead to greater improvements in incontinence signs and symptoms, improved PERF/strength measures, and levator hiatus measures than a lower frequency program

Clinical Application-
It would seem prudent to assign more intensive training programs for patients. The frequency of the two groups (900 vs 180 contractions/week) are very different and this study does not inform us which specific training loads lead to greatest of gains in continence.

As the same type of core/pelvic floor training program was performed by all subjects- we cannot assume that these exercises are superior than others for the treatment of SUI

While we see improvement in PFMT training programs- we cannot assume that improvements are due to changes in strength/endurance or even morphometry- more research needed

List discussion questions
As the low frequency group’s ICIQ UI SF scores decreased by less than one point and incontinence episodes/week decreased by 2.9 incidences (from 9.31 to 6.38)- do you think 2 times/week for 15 min is insufficient for clinically important changes?
How does this change the way you educate your patients about their HEPs?