

## Research review

This instalment features an update of an important Cochrane Review of pelvic floor muscle (PFM) training (PFMT), a randomized controlled trial (RCT) investigating hypopressive exercises versus PFMT, and a further study suggesting that transcutaneous electrical nerve stimulation (TENS) is as effective as percutaneous tibial nerve stimulation (PTNS). Other papers examine the prevalence of urinary incontinence (UI) in women, factors associated with unsuccessful pessary fitting, and physiotherapy for pelvic pain. Thanks go to our reviewers, Kirstie Ross, Carolyn Lindsay and Becky Corran.

A recent Cochrane Review update (Dumoulin *et al.* 2018) examined PFMT versus no treatment, or inactive control treatments, for women with UI. The authors included 31 trials, 10 of which were new for this update, involving 1817 women. Most of the studies investigated stress UI (SUI). Women with SUI and those with any type of incontinence in the PFMT groups were, respectively, eight and five times more likely to report that they had been cured. Overall, women in the PFMT groups were also more likely to report a significant improvement in their symptoms and quality of life (QoL), and objectively lost significantly less urine on 1-h pad testing. The quality of the evidence was moderate to high. Dumoulin *et al.* (2018) were confident that PFMT can cure or improve the symptoms of UI, and cited an economic study that found that PFMT was cost-effective (Sjöström *et al.* 2017).

Resende *et al.* (2019) carried out a small RCT with 61 participants that compared standard PFMT with hypopressive exercises for pelvic organ prolapse (POP). Both groups had three training sessions that were then followed by an exercise programme that was progressed every 2 weeks for 12 weeks. All women received standardized lifestyle advice and weekly telephone support. The outcome measures included: the POP Quantification System; a prolapse QoL questionnaire; electromyography; and the modified Oxford scale, as graded by a blinded assessor. While both groups improved, the women in the PFMT group improved more than those in the hypopressive exercises group.

Ramírez-García *et al.* (2019) compared TENS of the tibial nerve with PTNS in 68 patients

with overactive bladder (OAB). The participants received treatment once a week for 12 weeks. The authors found that TENS was as effective as PTNS in reducing daytime frequency and episodes of urge UI, and improving QoL.

A literature review by Davidson & Kruger (2018) examined the prevalence of UI in pregnancy, as reported in papers published between 2014 and 2017. Urinary incontinence and prevalence rates varied between 8% and 80%, and 40% and 65%, respectively. While UI is a transitory condition for some women, it becomes an ongoing problem for >33% of patients. Davidson & Kruger (2018) recommended that recognition of the prevalence of UI in pregnancy should alert women and caregivers to potential treatment options before and after delivery.

A Chinese study by Mao *et al.* (2018) that aimed to predict the factors associated with unsuccessful pessary fitting recruited 343 women with POP. The participants had stage 2 POP at least. A successful fitting was defined as an ability to retain the pessary for 2 weeks; only ring and Gellhorn pessaries were used. There was an 88% success rate, and therefore, the sample of women who could be examined for any factors leading to an unsuccessful fitting was small ( $n=41$ ). The independent predictors were a high body mass index and shorter total vaginal length. Also associated with an unsuccessful fitting were a younger age, a shorter menopause, a history of POP surgery and posterior vaginal wall prolapse.

Stein *et al.* (2019) reviewed the literature on treating male and female pelvic pain. Their paper discusses how both over- and underactive PFMs can contribute to pain, and addresses the current role of physiotherapy in the treatment of pelvic pain. This in-depth article is a good introduction for those who are new to the subject of pelvic pain treatment, and a good refresher for anyone already working in the field.

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### References

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