

Research review

This instalment features papers on: electroacupuncture as a treatment for stress urinary incontinence (SUI) in women; the outcomes of multidisciplinary interventions including physiotherapy for women with residual pelvic pain/dyspareunia following mesh removal; the link between obstetric tears, sexual function and dyspareunia in primiparous women; the effect of commonly performed exercises on the length and strength of pelvic floor muscles (PFMs) in postpartum women; the effectiveness of an exercise programme for diastasis recti abdominis (DRA); and finally, the development of a biotensegrity-focused therapy for the treatment of pelvic organ prolapse (POP).

Sun *et al.* (2020) carried out a secondary analysis of two randomized controlled trials involving 384 women. These studies investigated electroacupuncture for either SUI or stress-predominant mixed urinary incontinence. Two lumbosacral points, Bladder 33 and 35, were used bilaterally. The participants received 18 treatments over 6 weeks. Sun *et al.* (2020) found that 57.3% of elderly women and 60.7% of non-elderly women reported a reduction in episodes of incontinence of more than 50% over a 72-h period.

Abraham *et al.* (2019) reviewed the case notes of 37 women with residual pelvic pain after mesh removal. These patients received treatment through a multidisciplinary care pathway that included pelvic floor physiotherapy. Pelvic floor physiotherapy was offered to all participants. Treatment focused on down-training techniques, including methods of relaxation, stretches, diaphragmatic breathing, and internal and external manual therapy. The women were not instructed to undertake PFM strengthening exercises. Some of the participants were also offered injections or medications. Outcomes were measured with a pelvic pain severity score. Twenty-eight of the women included were deemed to have been “compliant” with treatment, and half of this group showed improvement. Those who improved showed a median change in pain score from 5.5 to 1.5. Half showed either no change or slight worsening during the course of the treatment. Abraham *et al.* (2019) conclude that the interventions included in their study are a worthwhile recommendation for women with

pelvic pain after vaginal mesh or mesh sling removal.

Gommesen *et al.* (2019) examined the association between degrees of perineal tear and sexual function at 12 months postpartum. They studied 554 primiparous women from four Danish hospitals. Sexual function was evaluated via an electronic survey, the Pelvic Organ Prolapse/Urinary Incontinence Sexual Questionnaire (PISQ-12). These authors found that women with second-, third- and fourth-degree tears had a higher risk of dyspareunia compared to women with none. Over 50% of women who had had a third- or fourth-degree tear still had dyspareunia at 12 months postpartum. Interestingly, 25% of women who did not sustain any tearing also still had dyspareunia at this point. Higher mean scores on the PISQ-12 were found in women who had third- or fourth-degree tears. Gommesen *et al.* (2019) conclude that it is important to minimize perineal trauma during delivery, and to counsel women about sexual function before, during and after pregnancy.

Deering *et al.* (2020) investigated the impact of deep abdominal muscle retraining on inter-recti distance (IRD), muscle recruitment and running gait up to 2 years postpartum. The participants were 13 pain-free recreational runners with impaired deep abdominal muscle activation. The study under-recruited to the control group, and therefore, only intervention data were analysed. Alongside a daily home exercise programme, participants attended one, 30-min therapy session per week for 8 weeks. They were taught exercise progression, beginning with the abdominal draw-in manoeuvre and functionally progressing to single-leg squats. The data analysed demonstrated reduced IRD below the umbilicus, suggesting that an 8-week exercise programme has a role in the conservative management of DRA, but further research involving a larger, more powerful trial is needed.

Siff *et al.* (2020) examined the effect of commonly performed exercises on the PFMs in postpartum women. All those with prolapse beyond the hymen were excluded. The authors found that bird-dog, plank and leg-lift exercises should be evaluated as alternatives to PFM training. This was because these exercises had similar effects

on strength, length and levator hiatus area, and leg-lifts generated a stronger contraction. Assessment techniques included perineometry and transperineal ultrasound.

Finally, Crowle & Harley (2020) reported a retrospective case series of 23 women with POP who were treated using a biotensegrity-focused therapy. This study offers preliminary evidence for an association between POP and pelvic tissue tension. All participants reported improved symptoms.

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