Research review

In this instalment, we look at: the use of electronic healthcare (e-health); two studies of the factors involved in pelvic organ prolapse (POP); a review of physiotherapy for chronic pelvic pain; and two papers investigating the effects of urinary incontinence (UI) on participation in exercise and quality of life (QoL) in women. Many thanks go to Becky Corran, Carolyn Lindsay and Kirstie Ross for their ongoing input into these research reviews.

In a single-blind, randomized control trial (RCT), van der Meij *et al.* (2018) surveyed the provision of perioperative e-health for intermediate-grade abdominal surgery, including gynaecological surgery. Three hundred and forty-four patients were randomized either into a web-based source of information (control group) or a customized pathway (intervention group). The latter included personalized recovery advice, day-to-day feedback relating to the use of an activity tracker and the ability to contact a healthcare professional, if needed. Using validated patient-reported outcome measures, van der Meij *et al.* (2018) found that social participation and physical function were both significantly higher in the intervention group. Patients found the e-health intervention very acceptable.

Berger *et al.* (2018) studied apical support, and levator ani muscle (LAM) appearance and function in women with anterior and posterior compartment POP, and normal controls. They found that women with POP had lower apical support, especially those with anterior compartment POP. Women with POP were also found to have a significantly larger genital hiatus than control subjects, and this was bigger in the anterior group compared to posterior group. Major LAM defects were more common in both POP groups compared to the control group. Women with POP generated less closure force than controls. Berger *et al.* (2018) concluded that women with posterior compartment POP can expect less improvement from apical suspension, and that this may be more important in women with anterior compartment POP.

In a large study of 964 women, Young *et al.* (2018) found a strong association between posterior compartment POP and body mass index (BMI), but there was no association between anterior and central compartment POP and BMI.

Berghmans (2018) has written an excellent and much-needed review of the evidence for physiotherapy for chronic pelvic pain and female sexual dysfunction. He reviewed 27 systematic reviews and five RCTs, and concluded that "pelvic physiotherapy can contribute significantly to assessing and treating such women, and clinical and scientific research indicate its efficacy and safety" (Berghmans 2018, p. 637).

Finally, two recent papers examine the effects of UI in women. Brennand *et al.* (2018) investigated urinary leakage during exercise in 59 active women. They found that repetitive high-impact activities (e.g. skipping, trampolining, jumping jacks and running) were most likely to cause leakage, while weightlifting and rowing were less likely to do so. Leakage impacted the activity levels of 50% of the women. Most often, activity intensity was decreased (90.3%), or specific activities avoided (80.7%). Women were interested in receiving treatment for leakage, despite not knowing what options were available. Krhut *et al.* (2018) looked at the effect of the severity of UI on QoL in women. They found that even minimal incontinence had a significant negative impact on QoL, with increasing incontinence having only a minimal additional effect. These authors also found that urge or mixed UI had a greater impact on QoL than stress UI.

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