

INFOGRAPHIC

Prevalence of pelvic floor dysfunction in recreational athletes: a cross-sectional survey

C. Brodie

Private Practice, Uckfield, East Sussex, UK

K. G. Campbell

Faculty of Medicine and Health Sciences, University of Nottingham, Nottingham, UK

Pelvic floor dysfunction (PFD) affects many women (Nygaard *et al.* 2008; Cooper *et al.* 2015). Risk factors include childbirth, ageing and obesity (Danforth *et al.* 2006). Recent evidence of the high prevalence of symptoms in elite sport suggests that participation could pose an additional risk for PFD (Carvalhais *et al.* 2018). It is not known whether this situation is reflected in recreational exercise.

Campbell *et al.* (2023a) investigated the prevalence of PFD in recreational exercisers, and potential associations between symptoms and exercise levels. Additionally, Campbell *et al.* (2023b) investigated the experiences of these women.

A cross-sectional Internet survey shared on social media collected data on demographics, and levels and types of exercise participation. All adult women were eligible. The prevalence of PFD was estimated using validated questionnaires. Participants were encouraged to comment freely on their symptoms.

Descriptive statistics were used to calculate the prevalence of PFD. Logistic regression investigated associations between symptoms and risk factors. Comments were analysed thematically.

Although high levels of all forms of PFD were reported, no association was found between participating in recreational exercise and symptoms. However, some participants noted that symptoms had prevented their participation in sport (Fig. 1). Although women reported symptoms as distressing and affecting all aspects of their lives, few had sought help. Some commented that their symptoms might be considered normal, while others who had sought help believed that healthcare professionals were dismissive.

Given the multiple benefits associated with exercise, healthcare professionals and women

Correspondence: Claire Brodie, Spring Physio, Brownings Farm Workshops, Lewes Road, Blackboys, Uckfield TN22 5HG, UK (e-mail: Claire@springphysio.co.uk).

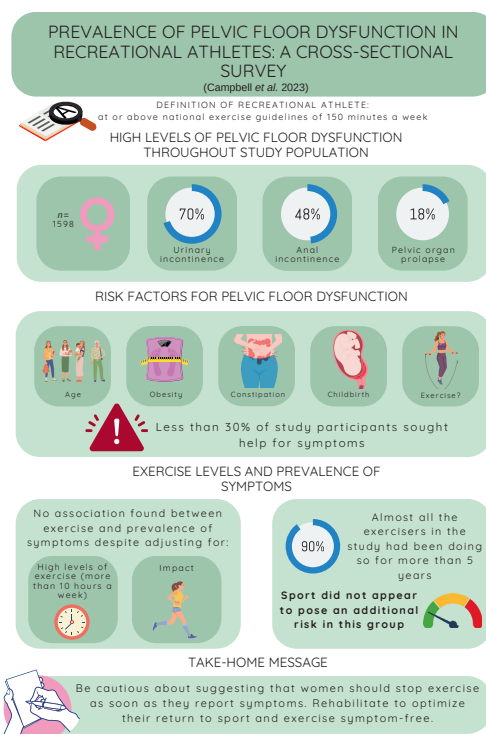


Figure 1. Prevalence of pelvic floor dysfunction in recreational athletes: a cross-sectional survey (Campbell *et al.* 2023) (full-sized version overleaf).

should be wary of extrapolating the risks to the pelvic floor that are associated with elite sport to recreational exercisers. Improving access to treatment for these symptoms is essential for women.

References

- Campbell K. G., Batt M. E. & Drummond A. (2023) Prevalence of pelvic floor dysfunction in recreational athletes: a cross-sectional survey. *International Urogynecology Journal* 34 (10), 2429–2437.
- Campbell K. G., Batt M. E. & Drummond A. (2023) Perspectives of women living and exercising with pelvic floor dysfunction: findings from the PREDICT survey. *Journal of Pelvic, Obstetric and Gynaecological Physiotherapy* 133 (Autumn), 29–37.
- Carvalhais A., Natal Jorge R. & Bø K. (2018) Performing high-level sport is strongly associated with urinary

PREVALENCE OF PELVIC FLOOR DYSFUNCTION IN RECREATIONAL ATHLETES: A CROSS-SECTIONAL SURVEY

(Campbell *et al.* 2023)



DEFINITION OF RECREATIONAL ATHLETE:
at or above national exercise guidelines of 150 minutes a week

HIGH LEVELS OF PELVIC FLOOR DYSFUNCTION
THROUGHOUT STUDY POPULATION

n=
1598



70%

Urinary
incontinence

48%

Anal
incontinence

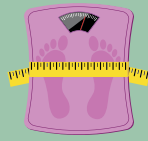
18%

Pelvic organ
prolapse

RISK FACTORS FOR PELVIC FLOOR DYSFUNCTION



Age



Obesity



Constipation



Childbirth



Exercise?



Less than 30% of study participants sought help for symptoms

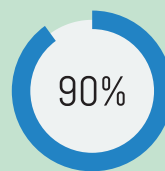
EXERCISE LEVELS AND PREVALENCE OF SYMPTOMS

No association found between exercise and prevalence of symptoms despite adjusting for:

High levels of exercise (more than 10 hours a week)



Impact



Almost all the exercisers in the study had been doing so for more than 5 years

Sport did not appear to pose an additional risk in this group



TAKE-HOME MESSAGE



Be cautious about suggesting that women should stop exercise as soon as they report symptoms. Rehabilitate to optimize their return to sport and exercise symptom-free.

- incontinence in elite athletes: a comparative study of 372 elite female athletes and 372 controls. *British Journal of Sports Medicine* **52** (24), 1586–1590.
- Cooper J., Annappa M., Quigley A., *et al.* (2015) Prevalence of female urinary incontinence and its impact on quality of life in a cluster population in the United Kingdom (UK): a community survey. *Primary Health Care Research & Development* **16** (4), 377–382.
- Danforth K. N., Townsend M. K., Lifford K., *et al.* (2006) Risk factors for urinary incontinence among middle-aged women. *American Journal of Obstetrics and Gynecology* **194** (2), 339–345.
- Nygaard I., Barber M. D., Burgio K. L., *et al.* (2008) Prevalence of symptomatic pelvic floor disorders in US women. *JAMA* **300** (11), 1311–1316.

Claire Brodie is a sports and women's health physiotherapist who runs a private clinic in East Sussex. She started designing infographics in 2020, and posted these on Instagram to raise awareness of pelvic health. Claire now also produces digital prints for use in clinics to act as a visual aid when educating patients on various pelvic health issues.

Gillian Campbell is a clinical academic. She works part-time as a specialist pelvic health physiotherapist in Derbyshire, and part-time as a research fellow at the University of Nottingham. Her research and clinical areas of interest are pelvic health symptoms in athletic women.