

PREVALENCE OF THE PELVIC FLOOR DYSFUNCTIONS IN AERIAL ATHLETES: A CROSS-SECTIONAL STUDY

G. Urbinati - L. Pellicciari - E. Bassini

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HYPOTESIS

Ours is the first study to investigate the prevalence of pelvic floor dysfunctions in **female athletes** who practice **aerial disciplines**.

Aerial silk, hoops, trapeze, net and pole were traditionally limited to acrobats and circus performers, yet now their popularity has been increasing.

3 STUDY DESIGN, MATERIALS AND METHODS

- web-based questionnaire for adult female subjects*
- percentage of people with UI was calculated according to the result of questionnaire
- chi square test

ICIQ-UI-SF for urinary incontinence
 ICIQ-OAB for urgency/frequency syndrome
 ICIQ-FLUTSsex for sexual symptoms

1 AIM

Considering that a gap in literature exists pertaining to female athletes in aerial disciplines, this study aims to provide **estimates of the prevalence of pelvic floor dysfunctions** in pole dance and aerial dance athletes.

Strength training is a risk factor for **stress urinary incontinence (UI)** in several sports, so we expect to find a prevalence similar to other sports investigated.

4 RESULTS Out of 439 women included:

- **135 (30.8%)** aerial dancers
- **247 (56.3%)** pole dancers
- **57 (13%)** both

116 (26.4%) have reported urinary incontinence (UI)

- **27.69%** aerial dancers
- **63.8%** pole dancers (greater contact with the ground)

Risk factors for UI such as pregnancy or menopause were calculated:

- 73.3% did not have pregnancies
- 95% are not in menopause

- **87 (75%)** one-time per week or less
- **17 (14.7%)** two-three times a week
- **4 (3.4%)** daily

25% of subjects with UI reported that this symptom has a negative impact on their sex life.

Statistically significant difference in the frequency of subjects who feel pain during sexual intercourse between the group of continental and non-continental (p<0.001)

51.5% of the total sample has reported pain during sexual intercourse.

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INTERPRETATION

- About **25%** reported leakage of urine once a week
- Prevalence is higher in pole dancers
- About **50%** reported pain during sexual intercourse

6 FINAL MESSAGE

Although there is no literature data on pelvic floor malfunctions in these disciplines, the study found **significant prevalence of UI** (higher in pole dancers) and the presence of the **symptom of pain related to sexual intercourse**.

This observational study deserves further incidence, and any clinical studies to check for changes training methods can **improve the condition of athletes** who suffer from UI and promote **prevention**.

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 2. Wikander L, Kirshbaum MN, Waheed N, Gahreman DE. Urinary incontinence in competitive women powerlifters: A cross-sectional survey. Sports Med Open 7: 89-11, 2021.
 3. Skaug KL, Engh ME, Frawley H, Bø K. Prevalence of pelvic floor dysfunctions, bother and risk factors and knowledge of the pelvic floor muscles in Norwegian male and female powerlifters and Olympic weightlifters. J Strength Cond Res 36: 2800-2807, 2022.