

## THE EVALUATION OF URINARY INCONTINENCE AMONG BRAZILIAN FEMALE ATHLETES WHO PARTICIPATED IN XV PAN AMERICAN GAMES, 2007.

### Hypothesis / aims of study

The prevalence of urinary incontinence during sports varies between 0% (golf) and 80% (trampolinists) [1]. The highest prevalence is found in sports involving high impact activities such as gymnastics, track and field, and some ball games [1]. The Pan-American Games are considered to be the fourth most important international athletic event in the world. The games bring together athletes from the countries of the Americas in a festival of sport and international friendship. The [2007 Pan American Games](#) were held in [Rio de Janeiro, Brazil](#), from [July 13 to July 29, 2007](#), with estimated 5,500 athletes, from 42 countries, participated in 38 sports. The [Brazilian](#) delegation consisted of 699 athletes (389 men and 310 women). The aim of this study was to evaluate the frequency of urinary incontinence in Brazilian female athletes who participated of XV Pan American Games.

### Study design, materials and methods

Observational study, ethical committee approval, performed during the Pan American Games. The survey was invited to the coaches of eighth teams of the Brazilian Olympic Committee. Questions regarding age, body mass index, frequency of trains, menarche age and menstrual cycle were evaluated. The International Consultation on Incontinence Questionnaire-Short Form (ICIQ-SF) was utilized to evaluate the urinary incontinence [2]. The ICIQ-SF is a simple and brief self-administered questionnaire used to assess the level and impact on QoL of urinary incontinence specifically. It is comprised of 3 questions regarding frequency, severity and QoL impact of the UI along with an eight-item scale, which assess the possible causes or situations related to UI [3].

### Results

Fifty six female athletes answered the questionnaire. The ICIQ-total score was 0 in the most cases (61,8%), mild in 29,1% and moderate in 9,1% (figure 1). Table 1 shows the number of athletes in each modality and Table 2 shows the demographic parameters of the athletes.

Figure 1: ICIQ-SF total score.

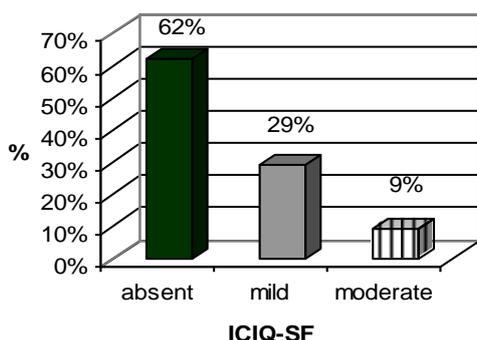


Table 1: Sport modalities.

Sport	N(%)
Track and field	9(16)
Handball	5(8,9)
Weightlifting	2(3,6)
Canoe flat water	2(3,6)
Diving	2(3,6)
Softball	17(30,4)
Table tennis	3(5,4)
Triathlon	1(1,8)

Table 2: Demographics parameters.

Variable	Mean±dp
Age(years)	23,6±4,8
BMI (Kg/cm <sup>2</sup> )	22,3±2,9
Menarche (years)	13,4±1,7
Train/day (hours)	4,5±1,6

### Interpretation of results

Urinary incontinence affects all ages and genders and female athletes who participate in high-impact sports are one group identified as being at a high risk for UI. The lower frequency of urinary incontinence among Brazilian female athletes can be explicated due to the kind of sports evaluated (lower and mild risk for urinary incontinence) [1].

### Conclusion

The ICIQ-SF is a simple and fast questionnaire that may diagnose the urinary incontinence in many populations. Although the lower incidence of urinary loss in this athletes, we emphasize that the evaluation of urinary incontinence in different sports is important to recognize athletes who have more risks to develop the problem and introduce pelvic floor exercises to prevent it.

1. [Sports Med.](#) 2004;34:451-64.

2. [Rev de Saúde Pública.](#) 2004;38:438-444.

3. [J Urol](#) 2005; 173:357.

**Specify source of funding or grant**

None

**Is this a clinical trial?**

No

**What were the subjects in the study?**

HUMAN

<i>Was this study approved by an ethics committee?</i>	Yes
<i>Specify Name of Ethics Committee</i>	Ethical Committee of UNIFESP/EPM
<i>Was the Declaration of Helsinki followed?</i>	Yes
<i>Was informed consent obtained from the patients?</i>	Yes