

# Quality of Life and Symptom Sharing Among Women with Athletic Urinary Incontinence

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## BACKGROUND

- Women have a 2.5-3 times greater chance of experiencing **urinary incontinence (UI)** during exercise; some high-impact activities are particularly provocative including gymnastics, trampoline, and volleyball (1, 2, 3, 4).
- In the last 5 years, there has been a substantial increase in research regarding Athletic UI in women.
- Athletic UI can cause worry, frustration, and embarrassment for women, negatively influencing their quality of life and sports performance (4, 5, 6).
- Athletic UI may cause women to limit activity, or even stop exercising (4, 5).
- There is a stigma about UI. Previous studies have shown that many women do not talk about urine leaking or report it to coaches or other healthcare personnel (1, 4).

## AIMS

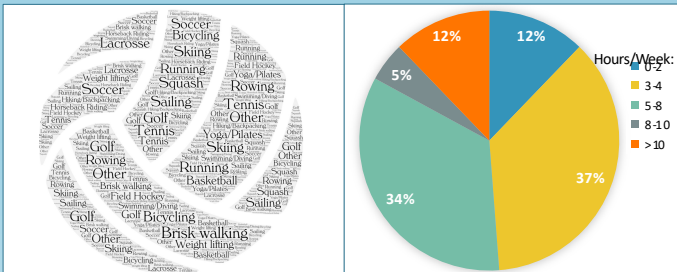
**Primary:** to compare UI frequency, quality of life, and symptom sharing among athletic or active women who experience UI.  
**Secondary:** to determine prevalence of common prevention and management strategies, including exercise modification, used among athletic and active women who have UI.

## METHODS

- Secondary analysis of cross-sectional data from an online survey titled, *Active Women's Incontinence Screening Tool (AWIST)*—a 39-item, online, comprehensive questionnaire to assess UI in female athletes and active women.
- A secure link to the AWIST (via RedCap) was posted on social media and used to recruit a wide range of participants representing various ages and activity levels.
- The AWIST had an overall completion rate of 64% over a two-week period, with a sample population of 118 athletic or active women.
- Survey questions captured frequency of UI, symptom sharing, athletics, amount of frustration, worry, and embarrassment (F/W/E), and demographic information.
- Participants included athletic or active females, age 18+, who experience some degree of UI, regardless of their sport modality. Women who participate in athletics or exercise but do not experience UI, or those who are not active, were excluded.
- Data analysis was performed using descriptive statistics through Excel's Analysis ToolPak; pivot tables and an ANOVA test were used for comparison of variables.

### Participants' Athletics & Activities

### Amount of Vigorous Exercise



## Demographics & Athletic Urinary Incontinence

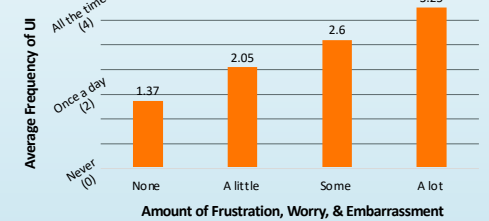
Characteristics	Range (M)
Age	22-76 (53.3)
Height	5'1"-5'10" (5'5")
Weight	100-231 lbs. (149.1 lbs.)
Level of Frustration, Worry, Embarrassment	0-3 (0.9)
Frequency of Athletic UI	1-5 (1.9)

**Table 1.** Participant demographics, level of F/W/E (0=none; 3=a lot) caused by UI, and frequency of Athletic UI (1=about once a week or less often; 5=all the time)

## RESULTS

- A total of 61 survey responses were included in this secondary analysis, as the respondents were athletic or active and experienced some degree of UI.
- Participants represented a wide range of sports and athletic activities (see **Figure 1**) with brisk walking (39.2%; n=24), skiing (16%; n=26.2), and running (16%; n=26.2) being most common. Amount of vigorous exercise per week varied (see **Figure 2**).
- Average age of participants was 53.3 years old with an average F/W/E level of 0.9 (0=none; 3=a lot) and frequency of Athletic UI being 1.9 (1=once a week or less often; 5=all the time)—see **Table 1** for demographics.
- Strategies to manage UI during exercise varied, with wearing pads or tampons being most common (36%; n=22), followed closely by worry regarding clothing (29.5%; n=18), and worry regarding place and time of exercise (18%; n=11) (see **Figure 3**).
- Women who reported "a lot" of F/W/E had a higher frequency of UI than women who reported less F/W/E (see **Figure 4**).
- When asked about symptom sharing, 60.7% (n=37) of women talk to someone about their UI symptoms. Of these, 23% (n=14) talk to family/friends only, 4.9% (n=3) talk to a healthcare professional only, and 32.8% (n=20) talk to both family/friends and a healthcare professional. However, 39.3% (n=24) share their symptoms with no one (see **Figure 5**).

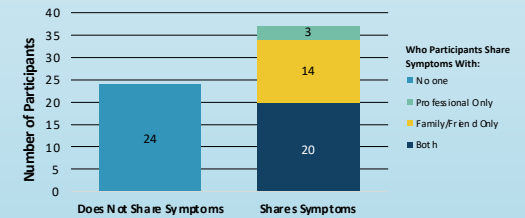
## Average Frequency of UI by Reported Frustration, Worry, & Embarrassment



**Figure 4.** Level of F/W/E compared to average frequency of UI

An ANOVA of frequency of Athletic UI with amount of frustration, worry, & embarrassment showed a significant association, with increased frequency related to increased F/W/E (M = 1.92, SD = 1.1), F(3, 57) = 72.6, p < .001 (p < 0.05 indicates significance).

## UI Symptom Sharing



**Figure 5.** Number of participants who share information about their urine leaking and who they share it with

## DISCUSSION

- Many athletes and active women who engage in various types of exercise experience Athletic UI.
- Most participants use management strategies such as the utilization of pads or tampons. Some women avoid specific exercises or exercise less often, which could have long-term effects on their physical health.
- The level of F/W/E reported by participants was not as substantial as reported in previous studies, potentially related to sample size and frequency of Athletic UI.
- Clinicians must recognize that women with a greater frequency of UI symptoms are more likely to have F/W/E.
- Most women talked to someone about their symptoms, whether a medical professional, family/friend, or both. This is different from previous studies, where women reported rarely talking about their urine leaking with others.

## FUTURE DIRECTIONS

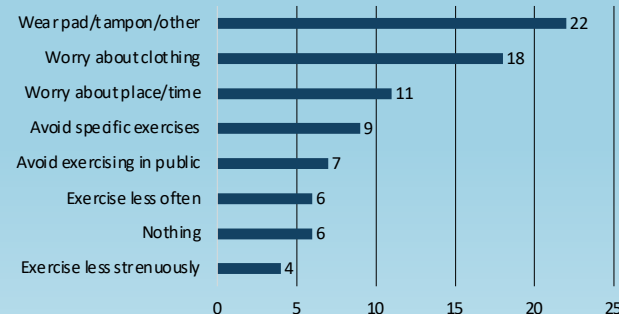
- Future studies containing larger numbers of athletes/active women that examine Athletic UI as a barrier to women's participation in sports and physical fitness.
- Future research surrounding symptom sharing and Athletic UI prevention/management strategies.
- Continue to bring awareness to Athletic UI and educate athletes, athletic trainers, coaches, and other healthcare professionals on the matter with the hope of increasing support and decreasing frustration, worry, and embarrassment.

## ACKNOWLEDGEMENTS

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## Athletic UI Management Strategies During Exercise



**Figure 3.** Strategies used by participants to manage UI during exercise & athletic activities; 21 participants did not specify & are not included in this graph