492 The Prevalence and Experience of Urinary Incontinence Among Elite Ladies Gaelic Football Players



Culleton-Quinn E¹, Bø K², Fleming N¹, Cusack C³, Daly D¹

1. Trinity College, Dublin, Ireland, 2. Norwegian School of Sports Sciences, Oslo, Norway, 3. Rotunda Hospital, Dublin, Ireland

Introduction

- ➤ Background Urinary incontinence (UI) is prevalent among sportswomen, particularly those engaged at an elite level, in high impact sports and with long hours of training with a need for sports-specific research identified [1, 2]. In addition, a need for the incorporation of a qualitative component in future research investigating elite sportswomen's experiences of UI has also been identified [3].
- ➤ Larger Research: This current study is part of a larger mixed methods study investigating pelvic floor dysfunction in female Gaelic sports athletes.
- Sport Ladies Gaelic Football: is a Gaelic team sport where two 15-member teams (1 goalkeeper, 6 backs, 2 midfielders and 6 forwards), playing on a large grass pitch (145/90m), aim to score points and goals in H-shaped posts by kicking and/or handpassing a round ball (heavier than a football). The ball can be held by one player for no longer than four steps following which it must be kicked back to themselves or bounced once. There are 32 county teams in Ireland with the county players representing the elite athletes in this sport.







- (photos used with permission from dreamstime.com)
- ➤ Main Aim of Study: This study's main aim is to identify the prevalence and experience of UI among elite Ladies Gaelic Football players.

Methods

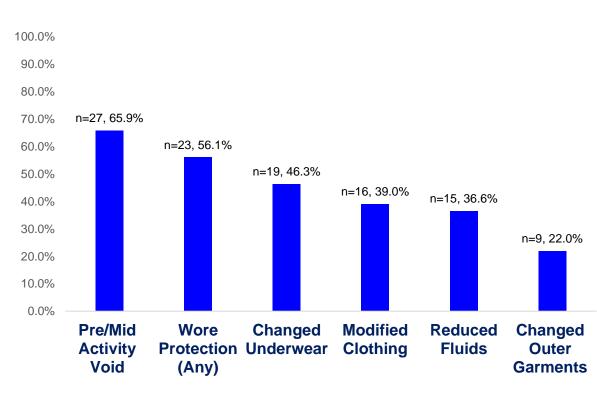
- Design: A cross-sectional study.
- Participants: All elite Ladies Gaelic Football players who were 18 years or older and were playing at county level were invited to participate.
- ➤ **Procedure:** An online, self-administered, anonymous questionnaire was developed, and the survey link was circulated to players by the Gaelic Players Association (GPA) during the 2021 Gaelic football season (May to September 2021).
- Questionnaire: Comprised of three sections (Qualtrics). Section One sought participants' demographic information. Section Two included questions around participants' knowledge concerning pelvic floor muscles (PFMs) and pelvic floor muscle training (PFMT). This section also ascertained prevalence of UI among the players using the International Consultation on Incontinence Questionnaire-UI Short Form Questionnaire (ICIQ-UI-SF), their experiences of UI and the management strategies, and triggers concerning UI during training, matches and daily life. Section Three included questions concerning the players' medical history, injury history and sports history.
- > Validity and reliability of the survey instrument was established.
- > Statistical Analysis: Descriptive statistics were used to identify prevalence, means and frequencies, and the Mann-Whitney U test was used to assess the influence of the average weekly time engaged in training and matches on the prevalence of UI.

Results

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- ➤ **Response:** 83 County Ladies Gaelic Football players completed the online survey. The mean age of the players was 25 +/-4years [range 19 to 34 years] and the majority (94.52%) were nulliparous.
- ➤ UI Prevalence: 80 players completed the ICIQ-UI-SF and UI prevalence was 63.75% (n=51/80). The mean ICIQ-UI-SF total score for those with UI was 6.04 +/-3.50 suggesting moderate severity, and the everyday life (EDL) interfere score 2.33 +/- 2.69 indicated a relatively low impact on the players' daily life.
- ➤ **Risk factors:** Players experiencing UI reported longer average weekly minutes of sporting activity compared to players who reported that they did not experience UI (U= 200.200, z= -2.439, p=0.015).
- ➤ Knowledge PFMs/PFMExs: Almost two-thirds (63.9%, n=53/83) knew where the PFMs are, less than half (45.8%, n=38/83) had learned about PFMT, half of whom (50%, n=19/38) stated that they had learned about them from a physiotherapist. Almost two-thirds (63.16%, n=24/38) felt confident that were performing PFMT correctly. Only 8.4% (7/83) reported that they had performed PFMT within the last four weeks.
- ➤ Strategies: Four-fifths of players (41/51, 80.39%,) used strategies to manage or mitigate their UI symptoms with the most frequently reported being going to the toilet before or during particular activities (27/41, 65.85%) (Figure 1).
- ➤ **Talked about UI:** Less than one-fifth (9/51, 17.65%) talked to another person about their UI. Most commonly, players spoke to family or friends (8/9, 88.89%; 5/9; 55.56%, respectively). Only 2/9 players talked with a health professional (physiotherapist).
- > **Treatment**: Only 4/51 (7.84%) received treatment (from physiotherapists and gynaecologists, and the treatment offered involved PFMT).
- ➤ **Triggers:** 49 players with UI responded to this question almost two-thirds (30/49, 61.22%) experienced UI at particular times during sport. Most frequently reported trigger involved jumping activities (20/30, 66.67%).
- > Figure 1:

Strategies Used by Players to Manage UI (n=41)



Conclusions

Interpretation of results

- ➤ A high prevalence of UI was reported among the County Ladies Gaelic Football players.
- This may not be surprising due to the physical nature of the sport which involves running, jumping, catching, passing and kicking a ball over a large pitch.
- ➤ Longer average weekly minutes of sporting activity was associated with increased prevalence of UI (p=0.015).
- Despite the high prevalence, the impact of UI on the players' everyday life appeared to be relatively low which is as expected in a predominantly nulliparous group of players.
- Whilst many players knew where the PFMs were, not all were confident in carrying out PFMT and few had been doing PFMT in the last four weeks, suggesting a need for education around PFMT in these sportswomen.
- Players reported triggers for UI during sport. Majority used strategies to try to manage symptoms of their UI whilst few discussed their UI or sought help for what is a treatable condition. Again this suggests a need for education regarding pelvic floor dysfunction among the players and highlights the need to address women's health in sport.

Concluding message: UI is prevalent among County Ladies Gaelic Football players. This study suggests a need for education regarding pelvic floor health and dysfunction and the treatment options available among County Ladies Gaelic Football players.

References

- 1. Bø K, Nygaard IE. Is Physical Activity Good or Bad for the Female Pelvic Floor? A Narrative Review. Sports Med. 2020 Mar;50(3):471-484. doi: 10.1007/s40279-019-01243-1. PMID: 31820378; PMCID: PMC7018791.
- 2. Pires T, Pires P, Moreira H, Viana R. Prevalence of Urinary Incontinence in High-Impact Sport Athletes: A Systematic Review and Meta-Analysis. J Hum Kinet. 2020 Jul 21;73:279-288. doi: 10.2478/hukin-2020-0008. PMID: 32774559; PMCID: PMC7386138.
- 3. Culleton-Quinn E, Bø K, Fleming N, Mockler D, Cusack C, Daly D. Elite female athletes' experiences of symptoms of pelvic floor dysfunction: A systematic review. Int Urogynecol J. 2022 Oct;33(10):2681-2711. doi: 10.1007/s00192-022-05302-6. Epub 2022 Aug 30. PMID: 36040507; PMCID: PMC9477953.