SEXUAL MEDICINE REVIEWS

Urinary Incontinence and Associated Female Sexual Dysfunction

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ABSTRACT

Introduction: Urinary incontinence (UI) and sexual dysfunction are common conditions often undiagnosed and untreated in women and are associated with decreased quality of life.

Aim: To evaluate the relation between UI and female sexual dysfunction (FSD), considering incontinence type and the psychosocial and physiologic aspects of sexual function.

Methods: PubMed search of terms related to UI and FSD from 1979 to 2016 generated 603 published references, of which 26 were included. Nine additional studies came from bibliographic review.

Main Outcome Measure: Rates and types of sexual dysfunction.

Results: In cross-sectional and case-control studies, UI was associated with increased rates and severity of FSD. Coital UI occurred in 24% to 66% of women with UI. Impaired body image, fear of coital UI, avoidance of sex, and complete abstinence were more common in women with UI. Deficits in desire, lubrication, satisfaction, and increased pain were found across numerous studies. Mixed UI was associated with more FSD than urgency UI and stress UI. Multiple studies suggest urgent UI is more bothersome than stress UI. Coital UI was associated with a urodynamic diagnosis other than genuine stress incontinence in 25% to 50%. Leakage at penetration was associated with stress UI; leakage at orgasm was associated more often with detrusor overactivity.

Conclusion: Women's UI is associated with increased rates of sexual dysfunction, suggesting concurrent screening is warranted. Clarifying timing of coital leakage would facilitate targeted treatment. Standardization of FSD measurements could better elucidate the relation between UI and FSD. **Duralde ER, Rowen TS. Urinary Incontinence and Associated Female Sexual Dysfunction. Sex Med Rev 2017;X:XXX–XXX.**

Key Words: Urinary Incontinence; Sexual Dysfunction; Coital Urinary Incontinence; Stress Urinary Incontinence; Urgency Urinary Incontinence

INTRODUCTION

Urinary incontinence (UI) and sexual dysfunction are two common conditions that often go undiagnosed and untreated in women[1–4] and are associated with decreased quality of life.[5–8] Although it seems clear these two urogenital conditions might be interrelated, they are typically diagnosed and treated as separate issues. In one study, nearly three fourths of all women visiting a urology clinic for UI or other lower urinary tract symptoms (LUTS) had not been asked about their sexual well-being.[9] Although considerable research has examined the interaction between these two conditions, it is difficult for clinicians to garner practical information from individual studies because of heterogeneous populations and varied definitions used for incontinence and sexual dysfunction.

Female sexual dysfunction (FSD), as currently defined, is highly prevalent, with reported lifetime rates of 38% to 70% in a general population.[10–17] However, in a landmark study of more than 30,000 women, although 44% were found to have problems with desire, arousal, and/or orgasm, only 12% reported distress.[7] Distress, not deviation from the norm, is typically the impetus for seeking medical care.

Although aging is associated with increased FSD,[18,19] FSD also is highly prevalent in premenopausal women[3,17,20] and sexuality remains important to women across the lifespan.[21] FSD is multifactorial[11,22–24] and associated with decreases in self-esteem, emotional well-being, and strength of partner relationships.[25] Rates of discussing this with a clinician are low,[3] which have been attributed to clinician and patient barriers.[4,26–29]

Numerous scales have been developed to standardize assessment of FSD. Among the most commonly used is the Female Sexual Function Index (FSFI), a questionnaire examining six

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domains of sexual function in women who are sexually active, including desire, arousal, lubrication, orgasm, satisfaction, and sexual pain that causes significant distress. The Bristol Female Lower Urinary Tract Symptoms (BFLUTS) questionnaire is another commonly used scale for assessing sexual function and urinary symptoms. Other scales include the Golombok-Rust Inventory of Sexual Satisfaction (GRISS), the Pelvic Organ Prolapse/Urinary Incontinence Sexual Questionnaire (PISQ), and the Female Sexual Distress Scale self-designed questionnaires also are common and often include similar questions as their validated peers and might explore a topic in greater depth.

UI is a condition afflicting 20% to 40% of adult women,[30,31] with nearly half going undiagnosed.[1,2] It is associated with decreased quality of life, social isolation, and depression at all ages, and—in older women—increased falls, fractures, and nursing home admission.[32–36]

The definition of UI has evolved over time. Although some studies have simply defined UI as involuntary urinary leakage,[37] others have distinguished "urgency" symptoms from "stress" symptoms.[38] "Stress" UI (SUI) has been defined as leakage associated with increased intra-abdominal pressure, and "urgency" UI (UUI) has been defined as leakage associated with an overpowering urge to void.[39] More recently, studies have used "mixed" UI (MUI) to describe women with comparable stress and urgency symptoms.[40] It also is important to note UUI falls on the extreme end of the overactive bladder (OAB) spectrum, which ranges from continent or "dry" to incontinent or "wet" OAB. The most contemporary definitions come from the International Urogynecological Association (IUGA) and the International Continence Society (ICS) joint report. They define SUI as involuntary loss of urine at effort or physical exertion (eg, sporting activities) or at sneezing or coughing; UUI is defined as involuntary loss of urine associated with a sudden, compelling desire to pass urine that is difficult to defer; and MUI is defined as involuntary loss of urine associated with urgency and with effort or physical exertion or at sneezing or coughing.[41] Urodynamic correlates found in some studies include detrusor overactivity (DO), formerly detrusor instability (DI), genuine stress incontinence (GSI), and MUI.

Epidemiologic studies on the prevalence of UI subtypes have suggested 15% of adult women have frequent SUI, 10% to 15% have UUI, and 15% have MUI.[42,43] Rates of UI type differ across the lifespan, with UUI and MUI incidence increasing with age, whereas there is conflicting evidence about SUI.[42,44–46]

Coital UI (CUI) is the involuntary loss of urine that occurs during sexual activity, including during arousal, penetration, and/or orgasm.[41] It is common in women with UI, with estimates from 24% to 66%.[47–51] In a study of sexually active Brazilian women with UI, nearly half reported CUI: 68% of them with penetration, 27% with orgasm, and nearly 5% with both.[52] CUI is associated with a more negative impact on quality of life.[6] There is no validated instrument for measuring the impact of CUI.

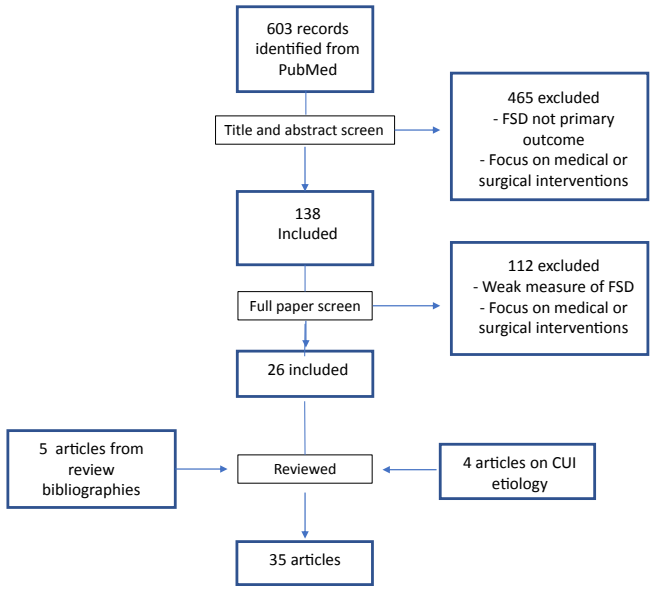

Figure 1. Inclusion and exclusion criteria for review. CUI = coital urinary incontinence; FSD = female sexual dysfunction.

Having any incontinence, even if not occurring during sexual activity, can alter sexual behavior and well-being. Several reviews have addressed the role of treatments for UI and changes in sexual function.[39,53] However, many women go undiagnosed, and there is no contemporary review more broadly exploring the role of UI in FSD. We believe this information is valuable to all clinicians who care for women with UI to ensure that quality of life and sexual function are addressed in any treatment plan. In this review, we evaluate the relation between UI and women's sexual function, considering incontinence type and the psychosocial and physiologic aspects of sexual function.

METHODS

We performed a PubMed search using Boolean linking language and the following terms (up to May 2016): *urinary leakage, urinary incontinence, orgasm, sexual satisfaction, sexual gratification, coitus, sexual behavior, dyspareunia, sexuality, sexual dysfunction, physiological, sexual dysfunction, psychological, psychological sexual dysfunction, psychosexual dysfunction, psychosexual disorder, hypoactive sexual desire disorder, sexual aversion disorder, aversion disorders, sexual, orgasmic disorder, sexual arousal disorder,* excluding *prostate, prostatectomy, surgical procedures, operative, pelvic organ prolapse/surgery, surgical repair, reconstruction, reconstructive, transobturator, mesh, urethra/surgery, graft, sling, suspension, neoplasms,* and *fecal incontinence.*

This generated 603 published references (Figure 1). Abstracts were read by one author (E.R.D.) who selected for those examining UI and sexual health in women, resulting in 138 studies that were reviewed by the two authors (E.R.D. and T.S.R.). Articles were included in the review if they focused specifically on the association of UI and sexual function and excluded if they focused on incontinence interventions and