

# Prevalence and Quality of Life among Overweight and Obese Women with Different Severity and Types of Urinary Incontinence-Mini Review

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## ABSTRACT

The condition known as Urinary Incontinence (UI) is widely prevalent and has a significant negative influence on quality of life. It has an impact on an individual's psychological, social, professional, sexual, and physical well-being. Obese individuals have a high prevalence of UI, which has a detrimental impact on their quality of life. Obesity and overweight together are proven to be independent risk factors for UI in middle-aged and older women. The frequency of UI with increased severity in young to mid-aged women is expected to rise in tandem with the rising number of obese individuals. For this patient group, weight loss ought to be the initial course of therapy. Moreover, the risk of developing certain UI subtypes persists and rises in women with a BMI>30. Still, more thorough comprehension of the pathophysiology behind this phenomenon is necessary.

**Keywords:** Urinary Incontinence (UI); Quality Of Life (QOL); Obesity; Overweight; Body Mass Index (BMI)

## INTRODUCTION

With an estimated incidence rate ranging from 10% to 40% [1], Urinary Incontinence (UI) is a widespread but underreported issue since many women choose not to seek medical attention [2]. It is defined by the International Urogynecological Association (IUGA)/International Continence Society (ICS) as a complaint of involuntary urine leakage [3]. Stress Urine Incontinence (SUI), urgency urine incontinence (UUI), and Mixed Urine Incontinence (MUI) are the main three types of UI [1]. Urine leakage in the presence of elevated intra-abdominal pressure without detrusor activation is known as stress urine incontinence, Over Active Bladder (OAB) is a symptom that is accompanied by or immediately precedes Urgency Urinary Incontinence (UUI), which is the involuntary loss of urine in accordance with detrusor activation and if both stress and urge incontinence coexist are termed as mixed urinary incontinence [2].

The prevalence of UI ranges from 5% to 70% worldwide [4]. UI and obesity are common, long-term health issues that have an adverse effect on quality of life [5]. Its predisposing factors are age, Body Mass Index (BMI) and parity [4]. As per recent research, women who are overweight or obese are more likely to experience

UI [1]. Weight clearly has an impact on incontinence; for every 5-unit rise in BMI, the chance of incontinence increases by 20% to 70%. Patients who are obese also have a roughly doubled risk of developing UI [6]. Urinary incontinence may not be a life-threatening condition, but it does have a significant negative influence on quality of life [3]. The principal consequences encompass a decline in self-assurance and social distancing, alongside other adverse effects like anxiety, despair and a reduction in physical exercise [3,7]. As a result, it is critical to recognize and address modifiable risk factors for UI [8].

## LITERATURE REVIEW

The prevalence, quality of life, severity, and various forms of urine incontinence in overweight and obese women were all investigated in the study by Alsannan B, et al. The International Consultation on Incontinence Questionnaire-Urinary Incontinence-Short Form or ICIQ-UISF was used to assess the subjects. 65% of the respondents were overweight based on demographic data. 61.2% of people experienced medium to extremely severe UI based on their ICIQ-UISF score. Urinary incontinence in premenopausal status was found to be significantly correlated with older age, heavier weight, higher parity and BMI equal or more than 30

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kg/m<sup>2</sup> ( $p < 0.001$ ). Additionally, there was a strong correlation ( $p < 0.001$ ) between UI in post-menopausal status and increased weight, parity, and BMI (25-29.9 kg/m<sup>2</sup> and  $> 30$  kg/m<sup>2</sup>) [4,9].

When the impact of obesity and overweight on the prevalence and severity of urinary incontinence was examined, no difference was found in the prevalence of UI between underweight and normal weight women. However, urinary incontinence was reported in 60% of overweight women and 81.4% of obese women, with a risk of 1.86 in overweight and 5.45 in obese women [4,9], similar correlations were reported by Shang, et al., [1], and Subak et al. [10].

Impact of Obesity and Overweight on Urinary Incontinence Subtypes revealed that 67.9% of obese and overweight women experienced one of the three types of UI (SUI, UUI, or MUI). Women who were overweight or obese had a considerably increased risk of UUI, SUI, and MUI compared to those whose BMI  $< 25$ . As a result, a positive correlation was found between BMI and all UI subtypes [4,9]. Aljohara, et al., reports states that the most common type of incontinence was stress (79%), followed by urge (72%) and mixed type (51%). Stress (5.83 (3.1, 11.1)), urge (3.41 (2.0, 5.8)), mixed (8.71 (3.4, 22.4)) incontinence and severe urine discomfort (8.11 (5.2, 12.7)) were all linked to a lower quality of life according to multivariate logistic regression analysis [2]. Molina, et al., demonstrated how urinary incontinence affects physical activity and found that women who suffer from MUI have a low level of physical activity, while those who experience a greater impact of UI symptoms have an increased likelihood of inactivity [11].

Significant correlations were found between being overweight or obese with “moderately bothersome” to “great deal” UI interfering with everyday activity (2.62 and 1.92, respectively). In 36.1% of cases, women reported having a poor quality of life as a result of UI. Of these ladies, 79.9% were obese or overweight [4]. Menopause and vaginal birth were found to be independent risk factors for UI (Alshenqeti, et al., and Nygaard, et al.). Women who had given birth vaginally had a 47% higher frequency of UI and women who had entered menopause had a 34% higher prevalence [3,6].

Ko, et al., studied the effect of physical exercise for 52 weeks in elderly women and demonstrated a remarkable suppression of BMI, fat percentage, blood lipid profiles and thereby improved overactive urinary bladder symptoms [12]. Weight loss, both nonsurgical and surgical, greatly reduced the symptoms of UI, according to Subak, et al., [10].

## DISCUSSION

Review reports state that people with obesity are more likely to experience Urinary Incontinence (UI), which lowers quality of life [6]. It is vital to have broad knowledge about the prevalence of this condition and its risk factors, since they can significantly enhance people’s quality of life and overall health [7]. Numerous studies have identified a variety of factors that influence the occurrence of UI in women, most significant of these factors include-age, menopause, delivery, number of deliveries, obesity, and diabetes [7]. Mistakenly, several women neglect to take into account the impact of obesity and overweight, thinking that UI is

a normal ageing process. [1].

Among patients after menopause, urinary incontinence was more common (34%). Lack of estrogen after menopause may be an etiological role in the onset or progression of UI since the tissues involved in the female urine continence mechanism are sensitive to estrogen. The other independent predictor linked to a higher prevalence of UI was vaginal delivery (47%), this effect was lowest in middle age and nonexistent in older patients, but more pronounced in the third and fourth decades of life [6].

Patients with higher body mass indexes, excess weight, and larger waist circumferences had increased rates of urinary incontinence. Higher weight and UI have been found to be strongly correlated in most research [6,9]. Being overweight puts additional strain on the muscles surrounding the bladder, which weakens them and causes urine leakage [1]. It is well established that the relationship between UI and obesity is relatively modest for UUI and stronger for SUI and MUI [6,13].

In view of the emotional impact, researcher’s states 38% of patients feel mild to moderate apprehensive or anxiousness and 26% feel depressed [3]. Research also showed that over 50% of participants had reduced Quality of Life (QOL) as a result of UI, nearly half of participants felt that UI had a negative influence on their job and everyday outdoor activities [2,4]. Treatments like weight reduction surgery can improve the quality of life and undergoing weight loss therapies have been demonstrated to be beneficial in improving UI. As such, the idea of employing weight loss as the initial course of treatment is encouraged [1,13].

The diagnosis of UI was based on subjective complaints by patients and wasn’t confirmed by clinical examination, all of the included studies rely on self-reports and questionnaires to determine UI diagnosis, which may raise the risk of misdiagnosis and high-risk responder bias in observational research.

## CONCLUSION

Obesity, which affects QOL, is directly associated with a higher prevalence of UI. Urine incontinence affects a large number of middle-aged and older women worldwide; therefore, health planners should concentrate on treatment and rehabilitation efforts in this area. Being overweight or obese throughout this phase of life raises the risk of UI. Additionally, women who have a BMI of 30 or higher are more likely to present with any kind of UI. It is advisable to implement more health programs to increase women’s awareness about UI and encourage them to seek medical care.

Despite the challenges posed by Urinary Incontinence (UI), there is hope on the horizon. Awareness of its prevalence and impact on various aspects of life has increased, paving the way for more proactive approaches to management. The correlation between UI and obesity highlights the importance of addressing lifestyle factors in treatment strategies. Encouragingly, weight loss interventions have shown promise as an initial step in improving UI symptoms. As research progresses, deeper insights into the underlying mechanisms will undoubtedly lead to more effective therapies. With a growing understanding and concerted efforts, we can look forward to better outcomes and enhanced quality of life for individuals affected by UI.

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