

PREVALENCE AND ANALYSIS OF THE REPERCUSSIONS OF WOMEN WITH URINARY INCONTINENCE

PREVALÊNCIA E ANÁLISE DAS REPERCUSSÕES DE MULHERES COM INCONTINÊNCIA URINÁRIA

PREVALENCIA Y ANÁLISIS DE LAS REPERCUSIONES DE MUJERES CON INCONTINENCIA URINARIA

Manuela de Mendonça Figueirêdo Coelho¹
Mônica Oliveira Batista Oriá²
William Caracas Moreira³
Fabiane do Amaral Gubert⁴
Mariana Cavalcante Martins⁵
Andreza Silvano Barreto⁶
Janaína Fonseca Victor Coutinho⁷

How to cite this article: Coelho MMF, Oriá MOB, Moreira WC, Gubert FA, Martins MC, Barreto AS, et al. Prevalence and analysis of the repercussions of women with urinary incontinence. Rev baiana enferm. 2025;39:e64606.

Objective: to analyze the prevalence, related factors and impact on the quality of life of women with urinary incontinence. **Method:** cross-sectional and quantitative research carried out in all Brazilian regions with 796 women. The variables collected were sociodemographic, clinical and obstetric, in addition to symptoms of urinary incontinence and quality of life assessment. Subsequently, bivariate analysis were performed. **Results:** there was a high prevalence of urinary incontinence (84.18%), with emphasis on mixed urinary incontinence (58.24%). The main related factors were pregnancy ($p=0.014$) and constipation ($p=0.000$). Women with mixed incontinence had a greater impact on quality of life when compared to those who had only stress urinary incontinence and urge urinary incontinence. **Conclusion:** there was a high prevalence of incontinence, with pregnancy and constipation as the most important related factors. The prevalence of mixed incontinence and its impact on women's quality of life stand out.

Descriptors: Urinary Incontinence. Women's Health Cross-Sectional Studies.

Objetivo: analisar a prevalência, os fatores relacionados e o impacto na qualidade de vida de mulheres com incontinência urinária. Método: pesquisa transversal e quantitativa realizada em todas as regiões brasileiras com 796 mulheres. As variáveis coletadas foram sociodemográficas, clínicas e obstétricas, além de sintomas de incontinência

Corresponding author: Manuela de Mendonça Figueirêdo Coelho, manumfc2003@yahoo.com.br

Editor-in-chief: Nadirlene Pereira Gomes
Associate Editor: Maria Carolina Ortiz Whitaker

¹ Federal University of Ceará, Fortaleza, CE, Brazil. <https://orcid.org/0000-0001-6182-9486>.

² Federal University of Ceará, Fortaleza, CE, Brazil. <https://orcid.org/0000-0002-1483-6656>.

³ Federal University of Ceará, Fortaleza, CE, Brazil. <https://orcid.org/0000-0003-2138-3445>.

⁴ Federal University of Ceará, Fortaleza, CE, Brazil. <https://orcid.org/0000-0003-3016-9619>.

⁵ Federal University of Ceará, Fortaleza, CE, Brazil. <https://orcid.org/0009-0006-8133-0141>.

⁶ Federal University of Ceará, Fortaleza, CE, Brazil. <https://orcid.org/0000-0003-0583-3426>.

⁷ Federal University of Ceará, Fortaleza, CE, Brazil. <https://orcid.org/0000-0001-7451-0132>.

urinária e avaliação da qualidade de vida. Foram realizadas análises bivariadas e multivariadas. Resultados: observou-se alta prevalência de incontinência urinária (84,18%), com destaque para a incontinência urinária mista (58,24%). Os principais fatores relacionados foram gravidez ($p=0,014$) e constipação ($p=0,000$). Mulheres com incontinência mista apresentaram maior impacto na qualidade de vida quando comparadas àquelas que apresentaram apenas incontinência urinária de esforço e incontinência urinária de urgência. Conclusão: verificou-se alta prevalência de incontinência, com gravidez e constipação como os fatores mais importantes relacionados. Destaca-se a prevalência de incontinência mista e seu impacto na qualidade de vida das mulheres.

Descritores: Incontinência Urinária. Saúde da Mulher. Qualidade de Vida. Prevalência. Estudos Transversais.

Objetivo: analizar la prevalencia, factores relacionados e impacto en la calidad de vida de mujeres con incontinencia urinaria. Método: investigación transversal y cuantitativa realizada en todas las regiones brasileñas con 796 mujeres. Las variables recogidas fueron sociodemográficas, clínicas y obstétricas, además de síntomas de incontinencia urinaria y valoración de la calidad de vida. Se realizaron análisis bivariados y multivariados. Resultados: se observó alta prevalencia de incontinencia urinaria (84,18%), con destaque para la incontinencia urinaria mixta (58,24%). Los principales factores relacionados fueron el embarazo ($p=0,014$) y el estreñimiento ($p=0,000$). Las mujeres con incontinencia mixta tuvieron un mayor impacto en la calidad de vida en comparación con aquellas que solo tenían incontinencia urinaria de esfuerzo e incontinencia urinaria de urgencia. Conclusión: existió alta prevalencia de incontinencia, siendo el embarazo y el estreñimiento los factores relacionados más importantes. Se destaca la prevalencia de incontinencia mixta y su impacto en la calidad de vida de las mujeres.

Descriptores: Incontinencia urinaria. Salud de la mujer. Calidad de vida. Predominio. Estudios transversales.

Introduction

Urinary incontinence (UI) is a multi-causal phenomenon characterized by the involuntary loss of urine through the urethra, in sufficient quantity to result in a social and/or hygienic problem, affecting people of all ages, especially women. It presents three most prevalent types: stress urinary incontinence, when related to increased intra-abdominal pressure (cough, smile or standing position); urge urinary incontinence, when it occurs due to pollakiuria and nocturia; and mixed urinary incontinence, which corresponds to a combination of the aforementioned types⁽¹⁻²⁾.

Currently, it is considered a public health problem with a variant prevalence between 5% and 70%, being more frequent between 25% and 45% of adult women, with progressive increase according to age⁽³⁾. A study carried out in Governador Valadares, Minas Gerais, found a prevalence of 36.3% among women users of Primary Health Care (PHC) units, with a moderate impact on quality of life⁽⁴⁾. Another study identified a prevalence of 45.3% of UI among Brazilian Paralympic athletes, highlighting the need for specialized care for this population⁽⁵⁾. In

addition, a systematic review revealed that UI affects approximately one in four women in the first year after delivery, with stress urinary incontinence (SUI) being the most common type⁽⁶⁾. These data reinforce the importance of appropriate prevention and clinical management strategies to address UI in different groups of women.

Urinary incontinence has well-known determining factors, such as comorbidities, hormonal (estrogen) deficits, polypharmacy, smoking, gynecological-surgical history, obesity, mobility restriction, constipation, neurological changes, urinary infections, as well as anatomical and functional changes resulting from aging. However, it is still seen, in common sense, as a physiological change resulting from aging. Therefore, neglect in the search for health services is common⁽²⁾.

Prevention and treatment actions should be carried out by several health professionals, including nurses. These professionals must be able to identify UI through a qualified history, clinical examination and complementary exams,

provide a differential diagnosis and discuss the case in an interdisciplinary way⁽⁷⁻⁸⁾.

With several treatments available, the first line of therapeutic conduct consists of conservative management, which is related to behavioral changes, such as stimulating weight loss, in the case of obese women, in addition to the practice of physical exercises and strengthening of the pelvic muscles, among others. Despite the importance for treatment, the need for actions involving preventive educational measures should be emphasized, such as the inclusion of educational leaflets in the instruction of the population, the correct teaching of pelvic muscle strengthening exercises, moderate combined physical exercise regimes, guidance for changing habits and proper management during pregnancy and delivery to avoid damage to the pelvic floor muscles⁽⁹⁻¹⁰⁾.

In this context, women with UI face changes in quality of life and problems related to social isolation, psychological disorders (depression), experiencing negative feelings (embarrassment, fear, hesitation, shame, insecurity, loneliness, sadness and anxiety), interference in sexual life, decreased self-esteem, sleep disorders, institutionalization and negative perception of health status⁽⁷⁾.

In addition, the role and autonomy of nursing in these cases should be discussed, and it is expected that the understanding of the factors associated with UI, as well as its impact on women's quality of life, will attract nursing constructions based on care practices capable of addressing the problem highlighted here. This study aimed to analyze the prevalence, related factors and impact on the quality of life of women with urinary incontinence.

Method

This is a cross-sectional and quantitative study, conducted throughout Brazil, with a collection period between September 19, 2021 and June 2022. The population was composed of Brazilian women, totaling more than 110,000 women (51.1% of the population). The tool

Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) was used to guide the production of the report of this manuscript.

To calculate the sample size, a margin of error of 5% and a confidence level of 95% were considered. The formula used was that of prevalence studies for infinite populations. Initially, the sample size "n" was calculated for the region of Brazil with the largest population (Southeast). Then, the sample sizes of the other states were calculated proportionally to the Southeast region, in order to guarantee a stratified sample of each region of Brazil. The calculated sample consisted of 385 women.

The study sample was of the convenience type, totaling 796 women who answered a semi-structured questionnaire on social networks. The instrument was made available through the Google Forms platform and distributed on the social networks WhatsApp, Instagram and Facebook, using groups of women from different regions of the country, through private messages. For those who showed interest in participating, the Informed Consent Form (ICF) and the link to access the questionnaire were sent through private messages or e-mail (according to preference). Responses were collected within the period determined for data collection, which corresponded to 30 days, allowing to reach a number of respondents higher than initially calculated.

The inclusion criteria defined for the study were: women aged 18 years or older and living in national territory (Brazil). As an exclusion criterion, incomplete questionnaires were disregarded. Data collection took place in a virtual environment, and the research field was distributed throughout all regions of Brazil, since recruitment was carried out digitally through social networks, ensuring national coverage. This methodology allowed a wide geographical distribution of the participants, representing different sociodemographic contexts of the Brazilian territory.

The studies included women who answered and returned the completed questionnaire

within the period determined for data collection. Women under the age of 18 were excluded. The questionnaire collected sociodemographic, clinical and obstetric data, such as age, weight, race, obstetric data, hormonal status, pelvic floor strengthening practice and presence of constipation. The International Consultation on Incontinence Modular Questionnaire on Female Lower Urinary Tract Symptoms (ICIQ-FLUTS) was also applied, which has questions that allow the assessment of urinary symptoms and their association with UI types.

CONTLIFE® was also applied, which aims to evaluate the impact of UI on women's quality of life (QoL) in six domains: daily activities, stress situations, self-image, emotional impact, sexuality and quality of life. This instrument does not have a cutoff point, but the higher the scores, both in total and by domain, the greater the impact on quality of life.

The results were organized in an Excel® spreadsheet and exported to the Statistical Package for the Social Sciences (SPSS) software, version 23.0, for descriptive analysis, such as simple and absolute frequencies, mean and standard deviation (SD). To associate the variables, the chi-square test was applied, considering a value of $p < 0.05$, odds ratio (OR), with a 95% confidence interval (95% CI). Variables with a p -value < 0.20 were inserted into the Logistic Regression model to control the determining factors and identify the significant factors associated with the outcome variable (UI). The suitability of the model was verified using the Hosmer-Lemeshow test. The adjusted odds ratios with 95% confidence intervals were

estimated to verify the strength of the association in the regression model, also considering a value of $p < 0.05$ as significant.

The Kruskal-Wallis test was performed with Dunn's post-hoc test to investigate the extent of the impact on the quality of life of women with incontinence, comparing the groups of stress urinary incontinence (SUI), urge urinary incontinence (UII) and mixed urinary incontinence (MUI).

The research was carried out in accordance with the ethical precepts for research with human beings, under Opinion number 4,270,415, of the Research Ethics Committee of the Federal University of Ceará, and all participants signed the ICF electronically.

Results

The sample consisted of 796 women distributed in the 26 states of Brazil and the Federal District (Northeast, 61.7%; Southeast, 18.7%; Midwest, 7.7%; South, 6.2%; and North, 5.7%). The age ranged from 18 to 73 years, with a mean of 34.68 years ($SD \pm 12.480$). The mean weight of the participants was 69.87 kg ($SD \pm 23.066$).

The identification of symptoms related to the types of urinary incontinence was performed using the ICIQ-FLUTS, allowing to know the prevalence of UI, which was 84.18% ($n=668$), according to the symptoms reported by each woman. Among participants who reported symptoms of urinary loss, mixed urinary incontinence had a higher prevalence (58.24%) (Table 1).

Table 1 – Types of incontinence identified by applying the International Consultation on Incontinence Modular Questionnaire on Female Lower Urinary Tract Symptoms. Fortaleza, Ceará, Brazil, 2022. (N=668)

Types of Urinary Incontinence	n (%)
Stress Urinary Incontinence	55 (8.23)
Urge Urinary Incontinence	224 (33.53)
Mixed Urinary Incontinence	389 (58.24)
Total	668 (100)

Source: Prepared by the authors.

Variables related to race, marital status, pregnancy, hormonal status, perineal muscle strengthening and constipation were also investigated as predictors of UI. A significant

association was observed between urinary incontinence and marital status ($p=0.038$), pregnancy ($p=0.000$), hormonal status ($p=0.000$) and constipation ($p=0.000$) (Table 2).

Table 2 – Association between urinary incontinence and sociodemographic and clinical factors. Fortaleza, Ceará, Brazil, 2022. (n = 796)

Variables	Incontinence		P (1)	Odds ratio	95% confidence interval
	Yes n (%)	No n (%)			
Race			0.731		
Yellow	10 (83.3)	2 (16.7)			
White	282 (84.7)	51 (15.3)			
Indigenous	1 (50.0)	1 (50.0)			
Brown	320 (83.8)	62 (16.2)			
Black	55 (82.1)	12 (16.1)			
Marital status			0.038	0.670	0.459 – 0.980
With partner	415 (86.1)	67 (13.9)			
Without partner	253 (80.6)	61 (19.4)			
Pregnancy			0.000	2.255	1.503 – 3.383
Yes	332 (89.5)	39 (10.5)			
No	336 (79.1)	89 (20.9)			
Hormonal Status			0.000	0.279	0.133 – 0.584
Menopause	129 (94.2)	8 (5.8)			
Reproductive Period	539 (81.8)	128 (18.2)			
Perineal muscle strengthening practice			0.167	0.743	0.487 – 1.134
Yes	155 (80.7)	37 (19.3)			
No	513 (84.9)	91 (15.1)			
Constipation			0.000	2.572	1.722 – 3.842
Yes	366 (89.9)	41 (10.1)			
No	302 (77.6)	87 (22.4)			

Source: Prepared by the author.

p (1) = Value obtained after chi-square test.

Having a partner was classified as a protective factor for urinary incontinence (OR = 0.670). On the other hand, women who have become pregnant are 2.2 times more likely to develop UI than those who have never been pregnant. In addition, women who are in menopause are 3.5 times more likely to have UI than those who are in the reproductive period. Constipation was also statistically significant, considering that women with constipation are 2.5 times more likely to develop UI.

A binary logistic regression (enter method) was performed (Table 3) to investigate the extent to which urinary incontinence could be adequately predicted by variables related to marital status, pregnancy, hormonal status, pelvic muscle strengthening, and constipation (variables with $p<0.20$). The model was statistically significant [$\chi^2_{(6)} = 46.581$, $p < 0.001$; Nagelkerke $R^2 = 0.097$], being able to adequately predict 83.9% of cases, with 100% prediction for UI cases.

Table 3 – Predictive variables for urinary incontinence. Fortaleza, Ceará, Brazil, 2022. (n = 796)

Variables	Wald	df [†]	Sig.	Exp(B)	95.0% Confidence interval for β	
					Lower limit	Upper limit
Pregnancy						
No	6.085	1	0.014	0.569	0.362	0.890
Yes (1)	---					
Hormonal Status						
Reproductive Period	6.354	1	0.012	2.729	1.250	5.956
Menopause	----					
Marital Status						
With partner	1.731	1	0.188	1.315	0.874	1.978
Without partner (1)	----					
Constipation						
No	19.134	1	0.000	0.403	0.268	0.605
Yes (1)	---					
Perineal muscle strengthening practice						
No	2.869	1	0.090	1.462	0.942	2.268
Yes (1)	---					
Constant	23.171	1	0.000	8.492	-	-

Source: Prepared by the author.

Note: Conventional signal used:

--- Numerical data does not apply.

† df = Degrees of Freedom; (1) Considering reference values.

Of all predictors, only marital status and perineal muscle strengthening practice were not significant. Not having been pregnant and the absence of constipation were protective factors for urinary incontinence ($\text{Exp(B)} < 1.0$). Being in the reproductive period increases a woman's

chances of having urinary incontinence by 1.2 times.

In this context, the result of quality of life levels in relation to each domain of CONTILIFE® is presented in Table 4.

Table 4 – Analysis of quality of life domains according to CONTILIFE®. Fortaleza, Ceará, Brazil, 2022. (N=639)

Domain	Minimum	Maximum	Mean	Standard deviation
Domain 1: Daily Activities	7	35	11.33	6.428
Domain 2: Stress Situation	4	20	6.93	3.974
Domain 3: Self-image	6	35	14.00	7.508
Domain 4: Emotional Impact	6	30	11.05	6.719
Domain 5: Sexuality	1	15	3.74	3.714
Domain 6: Quality of Life	0	5	1.06	1.542

Source: Prepared by the author.

A greater impact on quality of life was observed in three domains: performance of daily activities, self-image and emotional impacts. The Kruskal-Wallis test was significant ($H^{(2)} = 124.383$, $p < 0.001$). The results showed that women with mixed urinary incontinence (MUI) had a greater impact on quality of life when compared

to women with stress urinary incontinence alone ($z = 4.389$; $p < 0.001$, $r = 0.21$) and urge urinary incontinence ($z = 10.952$; $p < 0.001$; $r = 0.44$). Women with only SUI or UI showed no differences between them ($z = 1.903$; $p < 0.171$, $r = 0.11$).

Discussion

The worldwide prevalence of urinary incontinence in women varies according to different regions of the world. An Iranian study showed that the prevalence of UI was 39.5%, with 20.6% of stress urinary incontinence, 10.4% of urge urinary incontinence and 8.5% of mixed urinary incontinence⁽¹¹⁾. On the African continent, prevalence varied between countries, ranging from 0.6% to 42.1%⁽¹²⁾. A Brazilian study conducted with female farmers showed a prevalence of 26% of UI cases⁽¹³⁾.

A Chinese study found a prevalence of MUI of 6.1% in women⁽¹⁴⁾. A study conducted in Saudi Arabia reported that 10.15% of participants had MUI, trailing the prevalence of stress urinary incontinence (15.4%) and urge urinary incontinence (25.6%)⁽¹⁵⁾. In a cohort study conducted in the United States, MUI (10.57%) was the least prevalent, trailing SUI (27.68%) and UUI (19.64%)⁽¹⁶⁾.

The findings of this study document a high prevalence of UI (84.18%), with a higher classification of MUI (58.24%), although there are differences in prevalence depending on the location of the studies or the population profile of the respondents. Perhaps the lack of more comprehensive studies with more homogeneous methods prevents showing the global prevalence of this condition with greater reliability⁽¹⁴⁾. Even with this disparity, it is unanimous that many women live with this condition around the world, which should signal to health professionals that this situation needs to be verified during care related to women's health.

It should also be considered that MUI covers symptoms of the other two types and that, according to our clinical experience, many women sometimes have a lot and usually report in consultations the symptoms that most impact their quality of life, which is why it is up to the professional to perform a detailed anamnesis and physical examination in order to correctly identify and treat the type of UI⁽⁷⁾.

The risk factors presented in this study are corroborated in other investigations, for

example, in the National Health and Nutrition Examination Survey, with 4,686 adults, which showed that people who have constipation are 1.36 times more likely to have any of the types of incontinence compared to non-constipated people⁽¹⁷⁾.

For evacuation to occur, there must be relaxation of the puborectalis muscle and opening of the anorectal angle; if this does not happen, it is necessary to contract the abdominal muscles. These conditions can lead to stretching of the pelvic floor muscles, impairing the support of the pelvic organs and interfering with the proper functioning of the urethral and anal sphincters, leading to the onset of incontinence⁽¹⁸⁾.

Constipation is present during pregnancy, which implies two important risk factors for UI⁽¹⁹⁾. When considering pregnancy as a significant condition for UI, the data collected were consistent with those found in the national and international literature, which recognize pregnancy as an important risk factor⁽²⁰⁻²¹⁾.

Something that stands out was that menopause was configured as a protective factor, given the sample set of this study. The transition to menopause is a biological situation associated with loss of reproductive function and some changes in health. The organic changes resulting from menopause cause atrophy and urinary tract infections, urinary incontinence, decreased libido and sexual dysfunction, among others⁽¹¹⁾.

One study demonstrated that peri- and postmenopausal women have a significant prevalence (48.7%) of incontinence. However, far beyond the local hormonal implications (urethra), this period of a woman's life is associated with weight gain and the presence of diabetes, in addition to other factors that also lead to involuntary urinary loss^(11,22). Perhaps it can be suggested that the relatively young profile of the sample of this study (34.68 years) has impacted the results contrary to what is already established in the relevant literature.

Regarding the impacts on the quality of life of these women, this article will discuss their implications for everyday life and emotional aspects. Confirming the findings presented

here, a Danish research⁽²³⁾, conducted with 3,181 people, sought to explore whether and how urinary incontinence affects work ability and work-related quality of life. In the professional context, the data showed a negative impact on the quality of life and work of these individuals.

A Finland study corroborates this situation by pointing out that women with UI are 1.4 times more likely to have low work capacity than those who do not have this condition⁽²⁴⁾. It is known that UI considerably harms workers, with emphasis on health professionals, who, when experiencing this condition, adopt inappropriate behaviors for the health of the lower urinary tract, such as retaining urine and using pads throughout the day⁽²⁵⁾.

Considering that women have currently conquered an important space in the labor market and that, even so, they face the misogyny imposed in corporate spaces, urinary incontinence cannot be another condition that impairs women's work performance^(12,24,26), mainly because it is a preventable condition⁽¹⁰⁾ and easily treated in most cases.

Another implication about quality of life is related to sleep patterns. A survey of 6,838 women concluded that women with an inadequate sleep pattern (< 6 hours) are associated with a higher incidence of UI⁽²⁷⁾. In addition, sexuality is another area of quality of life directly affected by the experience of living with UI⁽²⁸⁾. There will always be an effect on the lives of these women, with an important correlation between the intensity of symptoms and their quality of life⁽²⁹⁻³⁰⁾.

A qualitative study conducted in the United States showed changes in the life routine of women with UI, in which participants reported that they stopped going to concerts and events where they did not have instant access to bathrooms. Particularly, the way UI impacted women's exercise habits was worrying, as many of them stopped practicing physical activities or modified the intensity of the activity to avoid urinary losses⁽²⁶⁾.

Important changes in women's daily activities can be perceived, with space that also highlights

UI as a source of constant anxiety or worry, in which the mental load affects not only women, but also their families⁽²⁶⁾. Although these studies on characteristics related to social relationships (relational problems and support difficulties) and incontinence are still incipient, it is known that these relationships can affect bladder health and cause the onset of symptoms in the lower urinary tract throughout life⁽³¹⁾.

The impact of UI on women's lives may never be fully measurable and is sometimes even disregarded in health care. Needs to be reviewed. Anxiety and depression are common in patients with UUI and MUI when compared to those with SUI⁽³²⁾. An even more alarming fact was revealed: a survey conducted in the United States, involving 31,891 people, pointed out that UI may be related to an increased risk of suicidal ideation⁽³³⁾.

The prevalence of incontinence in the aforementioned study was 28.9%; of these, 10.7% reported suicidal ideation. People with incontinence were related to suicidal ideation (15.5%) compared to those who did not have the condition (8%, $p < 0.001$). Even after adjusting for several factors studied, such as sociodemographic and economic data, lifestyle and comorbidities, UI remained associated with suicidal ideation in the multifactorial analysis (OR 1.54, 95% CI = 1.39-1.7, $P < 0.001$), with people with MUI being more likely⁽³³⁾.

Clinical implications for nursing practice

Implementation of Assessments and Treatments for Urinary Incontinence

The research revealed a high rate of urinary incontinence, with an overall prevalence of 84.18%, with mixed urinary incontinence being the most prevalent (58.24%) among the participants. Therefore, it is essential that nurses conduct systematic and detailed assessments of UI symptoms. They should be trained to use diagnostic tools, such as ICIQ-FLUTS, and implement effective interventions, including

pelvic floor strengthening exercises and strategies for constipation management, both factors associated with the development of UI, and strategies for constipation management, both factors associated with the development of UI.

Focus on Risk Factors and Preventive Strategies

Data indicate that pregnancy, menopause, and constipation are factors significantly related to UI. Nurses should implement educational and preventive measures aimed at these specific conditions, especially for women of childbearing age and those transitioning to menopause. This includes providing information on how these life stages affect UI, promoting practices for constipation management, and supporting pelvic floor strengthening exercises to reduce the incidence of UI and improve patients' quality of life.

Consideration of Quality of Life and Emotional Aspects

The study highlights a significant impact on the quality of life of women with mixed UI, particularly in relation to daily activities, self-image and emotional well-being. Therefore, nurses should consider the emotional and psychosocial aspects of UI when providing care. Offering psychological support and developing strategies to help patients manage the emotional impact of UI are key. In addition, tailoring interventions to specifically address the most affected areas, as identified in the research, can contribute significantly to improving patients' quality of life.

Relationship with Public Policies and Health Care

The high prevalence of UI and its negative impact on women's quality of life underscore the need for public policies focused on women's health and healthy aging. The inclusion of

routine UI assessment in gynecological, obstetric and geriatric consultations would allow early detection and more effective management, while access to low-cost conservative treatments, such as pelvic floor strengthening exercises, should be expanded in primary care services. In addition, population aging intensifies the relevance of specific strategies for the older people, integrating specialized care in geriatrics, preventing early institutionalization and stimulating physical rehabilitation. Thus, public policies aimed at the management of UI in older women are essential to promote healthy aging, reducing functional dependencies and improving the quality of life of these women.

Continuing Education in Nursing

In the field of nursing education, the importance of inserting the theme of UI in greater depth in technical and higher education curricula stands out, in addition to promoting continuing education for nurses working in primary, specialized and hospital care. The qualification of professionals is essential to deconstruct stigmas, offer qualified listening and ensure humanized care that considers the multiple determinants involved in UI. Thus, it is possible to strengthen evidence-based nursing practices, expanding the role of the profession in responding to a problem of great magnitude.

As a limitation of this study, we can highlight the cross-sectional approach, which does not allow us to identify cause and effect, as well as the fact that no one is able to measure in more detail the level of emotional commitment of these women, thus signaling the need for future studies aimed at investigating this issue more comprehensively, including qualitative approaches that were not used here.

Thus, the contribution of this study is mainly to bring to light more data on women with UI, including conflicting data with what has already been reported in the relevant literature, such as menopause configured as a protective factor, which indicates that studies on this topic cannot cease. In addition, it produces reflections and

reveals relevant data, such as emotional impacts, which are sometimes disregarded, calling for more complete, complex and humanistic preventive health practices, facilitating knowledge and working to deconstruct this fictitious paradigm that losing urine is normal with age, parity, among others. This is an ethical duty of professionals.

Conclusion

Urinary incontinence showed a high prevalence (84.18%) among the women studied, with a predominance of the mixed form, which was strongly associated with negative repercussions on quality of life, especially in daily activities, self-image and emotional well-being. These impacts are not limited to the physical sphere, but expand to social, family and even occupational issues, highlighting the stigma and barriers faced by women in different contexts. In addition, factors such as pregnancy and constipation were significantly associated with the development of the condition, while menopause, atypically, was shown to be a protective factor in the sample studied.

The findings reveal that UI goes beyond a physical complaint, intensely affecting psychosocial and functional aspects of women's lives, leading to social isolation, decreased self-esteem, losses in the work environment and difficulties in interpersonal relationships. In this context, it is essential that health professionals, especially nurses, act proactively in the identification, prevention and management of UI, through targeted interventions that include educational strategies, pelvic strengthening exercises and emotional support actions. In addition, specific public policies for women's health are necessary to expand access to early diagnoses and therapeutic interventions, aiming at improving the quality of life of these women.

Collaborations

1 – Project design and planning: Manuela de Mendonça Figueirêdo Coelho;

2 – Analysis and interpretation of data: Manuela de Mendonça Figueirêdo Coelho;

3 – writing and/or critical review: Manuela de Mendonça Figueirêdo Coelho, Mônica Oliveira Batista Oriá, William Caracas Moreira, Fabiane do Amaral Gubert, Mariana Cavalcante Martins, Andrezza Silvano Barreto and Janaína Fonseca Victor Coutinho;

4 – approval of the final version: Manuela de Mendonça Figueirêdo Coelho, Mônica Oliveira Batista Oriá, William Caracas Moreira, Fabiane do Amaral Gubert, Mariana Cavalcante Martins, Andrezza Silvano Barreto and Janaína Fonseca Victor Coutinho.

Conflicts of interest

There are no conflicts of interest.

Data Availability Statement

The data supporting the conclusions of this study are openly available in the Open Science Framework⁽³⁴⁾ at URL/ <http://doi.org/10.17605/OSF.IO/3QCJD>

References

1. Bolina AF, Dias FA, Santos NMF, Tavares DMS. Incontinência urinária autorreferida em idosos e seus fatores associados. *Rev Rene* [Internet]. 2013 [cited 2024 Oct 12];14(2). Available from: <http://periodicos.ufc.br/rene/article/view/3391>
2. Souza TR, Domingos TMR, Moreira SD, Machado E, Rabelo NNF, Ferreira GS. Incontinência urinária em mulheres: definição, etiologia e fatores de risco. *Rev Iberoam Humanidades Ciênc Educ*. 2023;9(6):2666-74. DOI: <https://doi.org/10.51891/rease.v9i6.10447>
3. Milsom I, Gyhagen M. The prevalence of urinary incontinence. *Climacteric*. 2019;22(3):217-22. DOI: <https://doi.org/10.1080/13697137.2018.1543263>
4. Alves CA, Ferreira DCC, Lima MF, Coimbra KA, Vaz CT. Prevalência de incontinência urinária, impacto na qualidade de vida e fatores associados em usuárias de Unidades de Atenção Primária à Saúde. *Fisioter mov*. 2022;35(spe):e35604.0. DOI: <https://doi.org/10.1590/fm.2022.35604.0>
5. Rodríguez-López ES, Calvo-Moreno SO, Basas-García Á, Gutierrez-Ortega F, Guodemar-Pérez J, Acevedo-Gómez MB. Prevalence of urinary incontinence among elite athletes of both sexes. *J*

- Sci Med Sport. 2021;24(4):338-44. DOI: <https://doi.org/10.1016/j.jsams.2020.09.017>
6. Suar G, Cevik F, Yavuz NS, Ozerdogan N. Urinary incontinence in the postpartum 1-year period: Its prevalence and effect on psychosocial status of women. *Low Urin Tract Symptoms*. 2023;15(5):191-9. DOI: <https://doi.org/10.1111/luts.12495>
 7. Oliveira LGP, Tavares ATDV, Amorim TV, Paiva ACPC, Salimena AMO. Impacto da incontinência urinária na qualidade de vida de mulheres: revisão integrativa da literatura. *Rev Enferm UERJ*. 2020;28:e51896. DOI: <https://doi.org/10.12957/reuerj.2020.51896>
 8. Martins RSM, Nunes TMA. Incontinência urinária feminina e o papel da enfermagem [trabalho de conclusão de curso]. [Internet]. Natal (RN): Centro Universitário do Rio Grande do Norte; 2022 [cited 2024 Oct 12]. Available from: <http://repositorio.unirn.edu.br/jspui/handle/123456789/477>
 9. Pontes ÍB, Domingues EAR, Kaizer UAO. Construção e validação de cartilha educativa sobre exercícios pélvicos fundamentais para mulheres com incontinência urinária. *Fisioter Pesqui*. 2021;28(2):230-41. DOI: <https://doi.org/10.1590/1809-2950/21007328022021>
 10. Pereira EG, Ribeiro AM. Atenção primária na prevenção da incontinência urinária feminina: revisão integrativa de literatura. *Rev Bras Saúde Funcional*. 2022;10(1). DOI: <https://doi.org/10.25194/rebrasf.v10i1.1392>
 11. Alizadeh A, Montazeri M, Shabani F, Bani S, Hassanpour S, Nabighadim M, Mirghafourvand M. Prevalence and severity of urinary incontinence and associated factors in Iranian postmenopausal women: a cross-sectional study. *BMC Urol*. 2023;23(1):18. DOI: <https://doi.org/10.1186/s12894-023-01186-w>
 12. Whiting D, Shane AI, Pope R, Payne S, Venn S. Female urinary incontinence in sub-Saharan Africa. *BJU Int*. 2022;130(5):543-9. DOI: <https://doi.org/10.1111/bju.15903>
 13. Roman P, Spinelli V, Gauer APM, Fiório FB, Mucke AC, Azzi VJB. Prevalence and factors associated with urinary incontinence in women farmers. *Fisioter mov*. 2022;35(spe):e35606. DOI: <https://doi.org/10.1590/fm.2022.35606>
 14. Hu JC, Ding YQ, Pang HY, Yu CQ, Sun DJY, Pei P, et al. Prevalence of urinary incontinence in middle-aged and elderly adults in 10 areas in China. *Chin J Epidemiol*. 2024;45(1):11-8. Available from: <https://ora.ox.ac.uk/objects/uuid:390c58cf-f6a2-49e9-bb46-f75446b05ee7>
 15. Thabet A, Battecha K, Alayat M, Ali M, Mahmoud H, Ebi AA, et al. Prevalence of urinary incontinence among women in Saudi Arabia: a cross-sectional study. *Eur Rev Med Pharmacol Sci*. 2023;27(13):6040-5. DOI: https://doi.org/10.26355/eurrev_202307_32958
 16. Kupfer N, Clancy A, Maguire F, Stairs J. Prevalence and Risk Factors for Urinary Incontinence in Nulliparous Women: A Contemporary, Population-Based Cohort Study. *Urogynecology*. 2023;29(5):520-7. DOI: <https://doi.org/10.1097/SPV.0000000000001296>
 17. Wang J, Ye H, Zhang C, Zhang A. Association of diarrhea or constipation with urinary incontinence in adults: A cross-sectional analysis of the National Health and Nutrition Examination Survey. *Neurourol Urodyn*. 2024;43(7):1674-85. DOI: <https://doi.org/10.1002/nau.25480>
 18. Pereira LCR, Silva JP, Lima CROP, Ferreira CWS. Prevalência, conhecimento e fatores associados à incontinência urinária em mulheres estudantes de um curso de Fisioterapia. *Fisioter Pesqui*. 2022;29(3):230-8. DOI: <https://doi.org/10.1590/1809-2950/19022929032022pt>
 19. Cattani L, Van Schoubroeck D, De Bruyn C, Ghesquière S, Deprest J. Body image and pelvic floor dysfunction in pregnancy and postpartum: a prospective one-year follow-up cohort study. *BJOG*. 2024;131(10):1420-9. DOI: <https://doi.org/10.1111/1471-0528.17820>
 20. Liu W, Qian L. Risk factors for postpartum stress urinary incontinence: a prospective study. *BMC Urol*. 2024;24(1):42. DOI: <https://doi.org/10.1186/s12894-024-01430-x>
 21. Luzolo AMN, Mabiala ED, Mbaki IB, Kibimbi PN, Matshinga NB, Kasonga RS. Epidemiological Profile and Attitudes of Pregnant Women Toward Urinary Incontinence: A Single-Center Cross-Sectional Study. *Int Urogynecol J*. 2024;35(3):521-6. DOI: <https://doi.org/10.1007/s00192-023-05718-8>
 22. Huang H, Ding G, Li M, Deng Y, Cheng Y, Jin H. Menopause and stress urinary incontinence: The risk factors of stress urinary incontinence in perimenopausal and postmenopausal women. *J*

- Obstet Gynaecol Res. 2023;49(10):2509-18. DOI: <https://doi.org/10.1111/jog.15742>
23. Jensen LCG, Axelsen S. Urinary incontinence and work capacity. *Dan Med J* [Internet]. 2023 [cited 2024 Oct 12];70(10):A04230271. Available from: <https://ugeskriftet.dk/dmj/urinary-incontinence-and-work-capacity>
 24. Salo H, Mäkelä-Kaikkonen J, Sova H, Piltonen T, Laru J, Ala-Mursula L, et al. Urinary incontinence associates with poor work ability in middle-aged women: A Northern Finland Birth cohort 1966 study. *Acta Obstet Gynecol Scand*. 2024;103(3):572-9. DOI: <https://doi.org/10.1111/aogs.14743>
 25. Brock C, Elliott S, Miller S, Polonsky R, Shoemaker B, Sullivan M. Examining workplace behaviors in adult women with urinary incontinence: A pilot study. *Womens Health (Lond)*. 2024;20:17455057241249865. DOI: <https://doi.org/10.1177/17455057241249865>
 26. Klein AJ, Eisenhauer C, Mollard E, Allappatu M, Shade MY, Struwe L, et al. "The constant worry": Urinary incontinence self-management in rural women: A qualitative study. *Res Nurs Health*. 2023;46(6):603-15. DOI: <https://doi.org/10.1002/nur.22341>
 27. Di X, Chen J, Wang M, Liao B. Association Between Sleep Duration and Urinary Incontinence in Female Adults: A Cross-sectional Study in National Health and Nutrition Examination Survey 2007-2018. *Urology*. 2023;181:48-54. DOI: <https://doi.org/10.1016/j.urology.2023.08.019>
 28. Shabani F, Montazeri M, Alizadeh A, Bani S, Hassanpour S, Nabighadim M, Mirghafourvand M. The relationship between urinary incontinence with sexual function and quality of life in postmenopausal women. *Post Reprod Health*. 2023;29(1):15-23. DOI: <https://doi.org/10.1177/20533691231155734>
 29. Abushamma F, Mansour A, Nassar R, Badran H, Alwafa RA, Ktaifan M, et al. Prevalence, Risk Factors, and Impact on Quality of Life Due to Urinary Incontinence Among Palestinian Women: A Cross-Sectional Study. *Cureus*. 2024;16(4):e57813. DOI: <https://doi.org/10.7759/cureus.57813>
 30. Sologuren-García G, Linares CL, Flores JR, Escobar-Bermejo G, Sotelo-Gonzales S, Fargerston CK. Epidemiology of Pelvic Floor Dysfunction in the Tacna Region of Peru, 2023. *Int Urogynecol J*. 2024;35:1211-8. DOI: <https://doi.org/10.1007/s00192-024-05792-6>
 31. Brady SS, Arguedas A, Huling JD, Shan L, Lewis CE, Fok CS, et al. Interpersonal Stressors and Resources for Support: Associations with Lower Urinary Tract Symptoms and Impact Among Women. *J Womens Health*. 2023;32(6):693-701. DOI: <https://doi.org/10.1089/jwh.2022.0483>
 32. Sarkar D, Tandon M, Pal DK. Comprehensive study of anxiety and depression in females with urinary incontinence. *Urologia*. 2023;90(4):757-62. DOI: <https://doi.org/10.1177/03915603231191837>
 33. Pan T, Zhang Z, He T, Zhang C, Liang J, Wang X, et al. The association between urinary incontinence and suicidal ideation: Findings from the National Health and Nutrition Examination Survey. *PLoS One*. 2024;19(5):e0301553. DOI: <https://doi.org/10.1371/journal.pone.0301553>

Received: November 20, 2024

Approved: June 19, 2025

Published: August 26, 2025



This article is open access and distributed under the terms of the Creative Commons CC BY Licence.

