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URINARY INCONTINENCE AND MENOPAUSE

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Abstract: Urinary incontinence (UI) is a common condition, especially among menopausal women, characterized by the involuntary loss of urine. In view of this, the aim of this study is to develop a study on the impact that urinary incontinence has on the quality of life of menopausal women. The methodology used in the study was a literature review, based on books and scientific articles from various areas on the subject. The results show UI and the menopause are closely related, since the hormonal changes typical of this stage of life can directly affect the function of the urinary system. The decrease in oestrogen production contributes to the weakening of the pelvic floor muscles, increasing the predisposition to incontinence episodes. As a conclusion, specific pelvic floor strengthening exercises, lifestyle changes and, in some cases, medical and surgical treatments, can bring relief and improve urinary control, since awareness and early care are essential for women to live this phase in a healthier and more comfortable way.
Keywords: Urinary incontinence. Menopause. Quality of life.

INTRODUCTION

Urinary incontinence (UI) is a common condition, especially among menopausal women, characterized by the involuntary loss of urine. Although it can occur at any stage of life, it becomes more prevalent as women get older, particularly during and after the menopause, due to hormonal transformations and other physiological changes that occur during this period (Felippe *et al*., 2019).

Menopause is defined as the end of menstrual cycles, marking the transition from the reproductive phase to the non-reproductive phase of a woman's life. The process usually occurs between the ages of 45 and 55 and is characterized by a gradual decrease in the production of female hormones, mainly estrogen. The drop in oestrogen levels has a direct impact on various structures in the female body, including the pelvic floor muscles and the urinary tract (Giarenis et *al*., 2024).

The pathophysiology of menopausal UI is complex and multifactorial, as it involves the interaction between hormonal changes, muscle weakening, changes in urethral tissue and dysfunctions in the neurological and mechanical control of the bladder (Bortolini *et al*., 2023).

Understanding these pathophysiological changes is essential for developing strategies to prevent and manage UI, including pelvic floor exercises, hormonal therapies and surgical interventions when necessary (Giarenis *et al*., 2024).

In addition to the drop in hormone levels, other factors can contribute to the onset or worsening of urinary incontinence during the menopause (Malinauskas *et al.,* 2022).

- Weight gain: Excess weight puts additional pressure on the bladder and pelvic floor and can increase the prevalence of urinary incontinence.
- Ageing: Ageing itself can weaken the pelvic floor muscles and affect urinary function.
- Previous births: Women who have had several pregnancies and births, especially cesarean sections or vaginal births, may be at greater risk of developing urinary incontinence due to the impact on the pelvic floor.
- Genetic factors: Some women may have a genetic predisposition to developing this condition.
- Smoking: Smoking is associated with a weakened pelvic floor and chronic coughing, which can increase intra-abdominal pressure, facilitating urine leakage.

The treatment of menopausal UI should be personalized, taking into account the severity of the condition, the patient's general health and her preferences. Some of the therapeutic

approaches include pelvic floor exercises (Kegel), which are one of the most effective strategies for strengthening the pelvic muscles and improving bladder control. Performing Kegel exercises regularly can prevent and even reverse urinary incontinence in many cases (Bortolini *et al.,* 2023).

In addition, José *et al.* (2021) describes hormone therapy, as in some cases, estrogen replacement can help restore tone to the vaginal tissues and urethra, improving urinary tract function; however, this approach should be evaluated individually, considering the risks and benefits. In addition, medications such as anticholinergics can be used to control urinary urgency, while alpha-blockers can help relax the urethra in cases of stress urinary incontinence (José *et al*., 2021).

In this sense, menopausal UI is a condition that affects many women and can significantly impact their quality of life, even though hormonal decline is a key factor, a multifactorial approach that includes lifestyle changes, physical exercise, hormone therapy (where appropriate), medication and, in more severe cases, surgical interventions, can offer relief (Russo *et al*., 2020).

In view of this, the work has the following problem: how can urinary incontinence impact on the quality of life of menopausal people?

This research is therefore justified by the relevance of the subject, since raising awareness of the condition and seeking early treatment are fundamental to ensuring that women can pass through this stage of life more comfortably and with greater control over their urinary health.

Therefore, the aim of this paper is to develop a study on the impact that urinary incontinence has on the quality of life of menopausal women.

METHODOLOGY

This research is defined as an integrative review. This particular procedure condenses information from empirical or theoretical literature to provide a more complete understanding of a specific topic, which makes it possible to incorporate scientific evidence into clinical practice aimed at health professionals.

According to Sousa et al. (2017), an integrative literature review consists of six stages:

- Defining the topic and choosing the hypothesis or research question to build the integrative review.
- Establishment of inclusion and exclusion criteria for studies or sampling in the literature search.
- Determining the information to be extracted from the selected studies and categorizing them.
- Evaluation of the studies included in the integrative review.
- Interpretation of the results obtained from the selected studies.
- Presentation of the review or synthesis of knowledge, consolidating the research findings.

The electronic search was carried out between October and November 2024 in the PubMed, Scielo, Bireme, Scopus and Web of Science (WOS) databases. Articles published in the last five years (2019-2024) in English and Portuguese were selected. To search for studies, we used descriptors combined with the Boolean operators AND and OR, in the following combinations: *urinary incontinence AND menopause AND quality of life*, and their Portuguese equivalents: *urinary incontinence AND menopause AND quality of life*.

As for the total number of studies, there was duplication and triplication between the databases chosen, so that each article was only counted once. After identifying the studies, those that met the inclusion criteria were cho-

sen, taking into account the analysis of the title and abstract of the studies. Only articles that met the following inclusion criteria were chosen: articles available in full at no cost; articles that discuss the suggested subject; articles that focus exclusively on menopausal women.

Review articles, editorials, theses and publications in summary format only were excluded. Data collection was based on the studies chosen for full reading, totaling 12 articles.

RESULTS AND DISCUSSIONS

The menopause is defined by the absence of menstruation for 12 consecutive months, marking the end of the female reproductive phase, and this process occurs when the ovaries, responsible for producing hormones such as oestrogen and progesterone, begin to produce them in reduced quantities, in which the decrease in oestrogen is the main cause of the characteristic symptoms of the menopause (Silva; Marques; Amaral, 2019).

According to data from the Brazilian Institute of Geography and Statistics (2022), currently around 18% of the female population in Brazil is made up of women over the age of 50, the age at which the signs of the climacteric and the onset of the menopause are common.

Studies such as Pereira *et al.* (2019) show that menopause is associated with various urinary and vaginal disorders, including symptoms such as urgency to urinate, urinary incontinence, lower urinary tract infections, vaginal dryness and discomfort during sexual intercourse. Among these problems, urinary incontinence is the most recurrent, negatively impacting different aspects of women's quality of life, such as the physical, psychological/emotional, social and sexual spheres (Pereira *et al.*, 2019).

A survey of 403 women revealed that 71.5% were menopausal and had symptoms of UI, as well as reporting physical limitations in their quality of life (Selvi *et al.,* 2020). This finding is reinforced by a study conducted in Poland, which assessed quality of life using the KHQ questionnaire and identified that women faced greater physical restrictions when urinary incontinence required the continuous use of pads for 24 hours as a control measure (Grzybowska; Wydra, 2019).

In this sense, UI refers to the involuntary leakage of urine, which leads to a lack of control over urination. This problem is not just the result of ageing, it is intensified by hormonal changes related to the menopause, in which the hormone oestrogen is vital for preserving the health and structural stability of urogenital tissues, such as the urinary bladder, urethra and pelvic floor muscles (Christmas *et al.,* 2023).

As estrogen levels decline, tissues can become atrophic and lose elasticity, resulting in decreased pelvic support for the bladder, so this physiological change can lead to stress urinary incontinence and urge incontinence, which is marked by a sudden and irresistible urge to urinate followed by involuntary leakage of urine (Clark, 2022).

Although some women minimize the effects of UI, some studies show a significant impact on the physical limitations of menopausal women, with prevalence ranging from 33.3% to 44.4% (Grzybowska; Wydra, 2019; Selvi *et al.,* 2020). This impact can be explained, in part, by the social stigma still associated with the signs and symptoms of UI for a large part of the female population (Selvi *et al.*, 2020).

Kaur *et al.* (2021) point out in their study that the impact of UI on women's quality of life varies according to the severity of the problem, and can result in severe cases of depression. This scenario is related to the fact that many women do not seek medical help, which prolongs suffering silently and leads to the neglect of urinary symptoms.

According to Vieira, Silva and Vieira (2021), the prevalence of depression among women with UI was 48% for severe cases and 45% for moderate cases. Participants also reported that depression interferes significantly with daily activities, causing demotivation to carry out tasks and contributing to social isolation.

In the study conducted by Rocha (2022), 113 women with an average age of 54.5 years were analyzed, of whom 44 (38.9%) were pre--menopausal and 69 (61.1%) post-menopausal. Although the literature reports a higher prevalence of (UI) and negative outcomes associated with hormone reduction in post-menopausal women, the WHODAS analysis, a tool that assesses functionality and disability, revealed no significant association between menopausal stage and these factors.

The postmenopausal group had worse absolute scores in the domains of cognition, self-care and interpersonal relationships. The premenopausal group had lower scores in the domains of mobility, activities of life and participation. These findings suggest that, during the climacteric period, it is necessary to consider the impacts on different aspects of life (Rocha, 2022).

Despite this, no association was found between the menopausal stage and the level of functionality and disability in women with UI (Rocha, 2022). Other factors, such as climacteric symptoms and the impact of UI, can influence functionality, so these results highlight the importance of developing prevention and treatment strategies aimed at the health of women with UI in the climacteric period, based on a more in-depth understanding of the functional conditions of this population (Rocha, 2022).

Still on the subject, research conducted by Allafi *et al*. (2024) indicates that the prevalence of UI in menopausal women varies between 13.6% and 84.4%, culminating in a total prevalence of 5,394 cases, or 63.1%. Symptoms associated with UI, including burning on urination and mixed UI, occur frequently and are usually associated with genitourinary menopausal syndrome (GSM) and nocturia.

These symptoms contribute to a decreased quality of life and significant morbidity, and UI persists as a prevalent and multifaceted problem among menopausal women, exerting a considerable adverse effect on their overall well-being and quality of life. Although the connections between menopause, ageing and UI are well established, there is still a wealth of knowledge to be uncovered about the root causes and effective treatment strategies (Allafi *et al.,* 2024).

For Allafi *et al.* (2024) improvements in the quality of care for menopausal women with UI can be achieved by standardizing diagnostic methods, focusing on non-hormonal treatments and taking socioeconomic and lifestyle factors into account.

Studies show that a notable proportion of menopausal women face some form of urinary incontinence, with prevalence rates ranging from 25% to over 50% within this group, highlighting the need for greater awareness and understanding of the problem. At this stage, incontinence may not only result from hormonal fluctuations, but also from additional factors such as weight gain, lifestyle changes and the existence of other health problems, including diabetes and urinary tract infections (Russo *et al.,* 2021).

The influence of menopausal UI goes beyond the physical symptoms, as many women express feelings of shame, anxiety and social isolation linked to their situation, and these psychological consequences can result in reduced self-confidence and resistance to participating in social or physical activities (Zhu *et al.,* 2022). It is even true that some women may avoid physical activities, travel or even intimate relationships for fear of incontinence, which has a significant impact on their general well-being and way of life (ZHU *et al*., 2022).

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According to Valentini *et al*. (2021) the exact nature of the link between menopause and UI is still not fully understood, although the incidence is high among menopausal women, there is no consensus on the intensity and pathophysiological processes that underpin this relationship.

The average age at menopause fluctuates, with some studies indicating averages between 48 and 50 years of age, in which diagnostic tools for UI include clinical assessments, self-reported measures and specific questionnaires, such as the *Urogenital Distress Inventory, Short Form* (UDI-6) and the *International Consultation on Incontinence Questionnaire (ICIQ)*-Lower Urinary Tract Symptoms (LUTS) (Valentini *et al*., 2021).

Iyer *et al.* (2023) reported that urinary incontinence is the most common problem during menopause, affecting 50% of post-menopausal women. The most common type of urinary incontinence is stress incontinence. Urinary incontinence is an early manifestation of GSM, adversely affecting the quality of life, daily tasks and sexual function of these women (Felipe *et al*., 2019).

In practice, the findings of Mortensen *et al*. (2022) reinforce the importance of health professionals being cautious when examining menopausal women for symptoms of UI and GSM, particularly in those with higher risk factors, such as advanced age or particular socioeconomic circumstances. A

Early identification and treatment of UI has the potential to improve quality of life and reduce the effect of related comorbidities, such as recurrent infections or social isolation motivated by shame (Mortensen *et al*., 2022).

In view of this, instruction in non-hormonal treatment methods, such as pelvic floor exercises and lifestyle changes, can be extremely beneficial, especially for women who are unable or unwilling to undergo hormone replacement therapy (Mortensen *et al*., 2022).

FINAL CONSIDERATIONS

Urinary incontinence and the menopause are closely related, as the hormonal changes typical of this stage of life can directly affect the function of the urinary system. The decrease in oestrogen production contributes to the weakening of the pelvic floor muscles, increasing the predisposition to incontinence episodes. In addition, factors such as weight gain, aging and psychological stress can also intensify this condition.

In view of this, it is essential that menopausal women receive adequate guidance on the prevention and treatment of this condition, which can have a significant impact on their quality of life.

Thus, specific exercises to strengthen the pelvic floor, lifestyle changes and, in some cases, medical and surgical treatments, can bring relief and improve urinary control, since awareness and early care are essential for women to live this phase in a healthier and more comfortable way.

Therefore, future studies on urinary incontinence and menopause have great potential to bring significant advances in the understanding and treatment of this condition, as research is focused on exploring new therapeutic approaches, such as more specific hormonal therapies and non-invasive treatments that can offer relief without the side effects of traditional medications.

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