

INFLUENCE OF PARITY ON THE CLINICAL CHARACTERISTICS OF THE CLIMACTERIC PERIOD IN WOMEN

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Abstract

This study evaluates the influence of parity on the clinical characteristics of the climacteric period in women. The climacteric period involves progressive ovarian hormonal decline, leading to vasomotor, urogenital, metabolic, skeletal, and psychological manifestations. Reproductive history, particularly parity, may modify the severity and timing of these symptoms through hormonal, metabolic, and end-organ adaptations.

The study analyzes clinical features among nulliparous and multiparous women based on literature synthesis and cohort data. Findings indicate that multiparous women tend to have later onset of menopause, milder vasomotor and psychological symptoms, and more stable bone health, whereas they are at higher risk for pelvic floor and urogenital disorders. Nulliparous women show earlier ovarian decline, higher vasomotor and psychological symptom burden, and increased metabolic risk. An integrative approach considering parity allows for targeted preventive care and individualized clinical management during the climacteric transition.

Keywords: Parity; climacteric; menopause; nulliparous; multiparous; vasomotor symptoms; urogenital symptoms; bone density; psychological symptoms.

Introduction

The climacteric period marks the transition from reproductive to non-reproductive life in women, characterized by gradual ovarian hormonal decline and multisystem effects. Symptoms may include hot flashes, night sweats, vaginal dryness, pelvic floor dysfunction, bone density loss, metabolic changes, and psychological disturbances.

Parity—number of pregnancies carried to viability—can influence the timing, severity, and clinical expression of these symptoms. Hormonal adaptations during pregnancy and post-partum periods may modulate hypothalamic-pituitary-ovarian axis function and provide long-term protective effects against some climacteric manifestations. Conversely, nulliparity is associated with earlier ovarian aging and heightened symptom burden.

This study aims to evaluate the influence of parity on the clinical characteristics of the climacteric period, highlighting implications for screening, prevention, and individualized care.



Literature Review

Several studies have explored parity as a determinant of menopausal onset and symptom severity:

- Karimova (2021) reported that multiparous women experienced later menopause and lower frequency of severe vasomotor symptoms.
 - Rustamov (2020) showed that parity influenced bone density outcomes and reduced early onset osteoporosis.
 - Ivanova (2020) demonstrated that nulliparous women had higher prevalence of anxiety and depressive symptoms during climacteric transition.
 - Mukhamedova (2019) highlighted the increased risk of pelvic floor dysfunction among multiparous women.
 - International studies from China, Italy, and Turkey confirm that parity modifies vasomotor, urogenital, skeletal, metabolic, and psychological outcomes in climacteric women.
- These findings indicate that reproductive history is a significant determinant of clinical manifestations during the climacteric period.

MAIN BODY

Epidemiological Factors

Climacteric symptom expression is influenced by multiple epidemiological factors: age, BMI, lifestyle, parity, genetic background, and socio-economic status. Multiparous women generally experience cumulative hormonal exposure, which can delay symptom onset and mitigate severity. Nulliparous women, lacking pregnancy-induced hormonal adaptations, may have earlier and more pronounced manifestations.

Clinical Manifestations

Age at Menopause

Multiparous women typically experience menopause 1–2 years later than nulliparous women. Early menopause in nulliparous women may be associated with accelerated ovarian reserve decline and increased risk of early vasomotor and metabolic symptoms.

Vasomotor Symptoms

Nulliparous women report more frequent and severe hot flashes and night sweats. Multiparous women show milder vasomotor symptoms, likely due to long-term estrogen exposure during multiple pregnancies.

Metabolic and Bone Effects

Multiparity correlates with more stable bone mineral density and reduced risk of early osteoporosis. Nulliparity is associated with higher metabolic stress and lower estrogen reserves, increasing risk for metabolic syndrome and bone loss.

Urogenital Symptoms

Multiparous women are at higher risk for pelvic floor dysfunction, including stress urinary incontinence and pelvic organ prolapse. Nulliparous women are less prone to these mechanical complications but may experience vaginal atrophy and dryness.



Psychological Symptoms

Nulliparous women show higher prevalence of anxiety, depression, and emotional lability during climacteric transition. Multiparous women generally report lower psychological symptom burden, possibly due to adaptive behavioral and hormonal mechanisms associated with pregnancy.

Assessment and Integrative Approaches

Clinical evaluation should include standardized symptom questionnaires, pelvic floor assessment, bone density measurement, metabolic screening, and psychological evaluation. Integrative care involves gynecologists, endocrinologists, mental health professionals, and lifestyle counseling. Parity should be considered a prognostic factor when designing individualized management strategies.

Results and Discussion

Analysis of the literature shows that parity modifies both timing and severity of climacteric symptoms:

- Multiparity delays menopause and reduces vasomotor and psychological burden.
- Nulliparity accelerates ovarian reserve decline and increases vasomotor and psychological symptoms.
- Multiparity increases risk for pelvic floor and urogenital disorders, requiring targeted interventions.

These results highlight the dual influence of parity: protective hormonal effects versus mechanical risk for the pelvic floor. Long-term clinical monitoring, preventive screening, and individualized counseling are essential for optimal care.

Conclusion

Parity is a significant determinant of the clinical characteristics of the climacteric period in women. Multiparous women generally experience later menopause, reduced vasomotor and psychological symptoms, and more stable bone health, while facing higher risk of pelvic floor disorders. Nulliparous women are prone to earlier ovarian decline and increased vasomotor and psychological symptom burden. Clinical management should incorporate reproductive history for personalized screening and treatment strategies.

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