



**THE NURSING PROGRAM FOR THE PREVENTION OF CARDIOVASCULAR  
DISEASES IN WOMEN OF WORKING AGE**

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**ABSTRACT:** Arterial hypertension (AH) is a serious medical and social issue and a major challenge to public health due to its high prevalence and adverse impact on prognosis. Currently, more than one billion people worldwide suffer from this condition, and by 2025, this figure is expected to reach 1.5 billion. This article describes the characteristics of arterial hypertension in middle-aged individuals in combination with obesity.

Purpose of the study: to investigate the effect of obesity on the course of hypertension and the achievement of target blood pressure levels in middle-aged patients observed in outpatient settings.

**Keywords:** arterial hypertension, obesity, blood pressure, atherosclerosis

**Introduction:**

Cardiovascular diseases encompass a range of disorders affecting the heart and blood vessels, including coronary artery disease, hypertension, and stroke. Although CVDs are often associated with older adults, the risk begins earlier, especially among women of reproductive age. Economically active women face additional challenges, including stress, time constraints, and lifestyle factors, which may increase their susceptibility to CVDs. Early prevention in this demographic is crucial for reducing long-term health risks.

**Risk Factors:**

Several modifiable and non-modifiable risk factors contribute to cardiovascular disease in fertile, working-age women:

- **Non-modifiable:** age, family history of CVD, genetic predisposition.
- **Modifiable:** obesity, physical inactivity, poor diet, smoking, alcohol consumption, stress, and hypertension.
- **Reproductive factors:** pregnancy complications (gestational diabetes, preeclampsia), oral contraceptive use, and hormonal fluctuations can influence cardiovascular risk.

**Preventive Strategies:**

1. **Lifestyle Interventions:**

- Balanced diet rich in fruits, vegetables, whole grains, and low in saturated fats.
- Regular physical activity (at least 150 minutes of moderate-intensity exercise per week).
- Smoking cessation and limited alcohol consumption.



**2. Regular Health Screening:**

- Blood pressure, lipid profile, and blood glucose monitoring.
- Body mass index (BMI) and waist circumference evaluation.
- Reproductive history assessment for pregnancy-related cardiovascular risks.

**3. Workplace Health Promotion:**

- Stress management programs.
- Flexible work hours to facilitate exercise and healthy meal preparation.
- Access to health education resources and preventive healthcare services.

**Discussion:**

Preventive strategies for cardiovascular diseases in fertile, economically active women require a multifaceted approach. Integration of lifestyle modifications, regular health monitoring, and workplace health promotion is essential. Early intervention can prevent the development of chronic conditions and improve quality of life, productivity, and long-term cardiovascular outcomes.

**Conclusion:**

Women of fertile age who are actively employed represent a critical target group for cardiovascular disease prevention. Tailored preventive strategies that consider lifestyle, reproductive health, and occupational stressors can significantly reduce CVD risk and promote overall health and well-being. Obesity was observed in 24.3% of the total study population. Among patients with hypertension, 43.5% were obese: 48.2% had class I obesity, 40.7% class II, and 11.1% class III obesity.

Male patients predominated in the obese group ( $p=0.012$ ). Hyperglycemia ( $p=0.035$ ), hyperuricemia ( $p=0.009$ ), and the absence of target BP achievement ( $p=0.007$ ) were significantly associated with obesity.

A high prevalence of carotid intima-media thickening (CIMT) and atherosclerotic plaque was found in nearly half of middle-aged hypertensive patients, regardless of obesity status. Patients with obesity had slightly higher nighttime BP values and more frequent non-dipper and night-peaker profiles.

The BMI threshold above which the likelihood of achieving target BP decreased was  $28.7 \text{ kg/m}^2$  (sensitivity 72%, specificity 72%). Metabolic features and organ damage patterns in patients with AH and obesity included hyperuricemia, hypertriglyceridemia, hypodynamia, and abdominal obesity.

Hyperuricemia was found in 31% of patients and was associated with disease duration, obesity, abdominal obesity, hypertriglyceridemia, and diastolic BP  $\geq 90$  mmHg.

In summary, middle-aged outpatients with AH and obesity frequently demonstrated poor BP control and a higher risk of cardiovascular complications. Among middle-aged outpatients with arterial hypertension, 48.8% did not achieve target BP levels. The risk group for inadequate control included patients with obesity, comorbidities, and men.



Obesity was detected in 43.5% of patients. AH combined with obesity was characterized by poor BP control, physical inactivity, hyperuricemia, hypertriglyceridemia, and hyperglycemia.

These factors contributed to left ventricular hypertrophy and carotid intima-media thickening, identifying these patients as a priority group for monitoring and preventive nursing care.

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