



# Relationship Between Food Security and Pregnancy Outcomes in the Population Covered by Medical Sciences in Mashhad

Yeganeh Barati<sup>1\*</sup>, Atefeh Sadat Yazdani Asl<sup>1</sup>, Monavvar Afzalaghaee<sup>2</sup>

<sup>1</sup>Student Research Committee, Department of Health Education and Health Promotion, School of Health, Mashhad University of Medical Sciences, Mashhad, Iran

<sup>2</sup>Department of Statistics and Epidemiology, Faculty of Health, Mashhad University of Medical Sciences, Mashhad, Iran

## OPEN ACCESS

### \*Corresponding Author:

Student Research Committee,  
Department of Health  
Education and Health  
Promotion, School of Health,  
Mashhad University of Medical  
Sciences, Mashhad, Iran

### Citation:

Barati Y, Yazdani Asl AS, Afzalaghaee M. Relationship Between Food Security and Pregnancy Outcomes in the Population Covered by Medical Sciences in Mashhad. *Iranian biomedical journal* 2024; 28(7): 406.

## ABSTRACT

**Introduction:** Proper nutrition during pregnancy plays a vital role in the health of the mother and fetus, providing essential nutrients for their growth and development. The present study aims to determine the prevalence of food insecurity in pregnant women and its relationship with pregnancy and fetal outcomes.

**Methods and Materials:** This cross-sectional study was conducted on 11,615 pregnant mothers with an average age of 29.53 years and a standard deviation 6.66. The study focused on service centers affiliated with Mashhad University of Medical Sciences. The data collected by the Sina system has been analyzed using SPSS software version 25.

**Results:** Among the pregnant mothers studied, 444 (3.8%) had gestational diabetes, and 7987 (68.8%) had food security. Also, data analysis revealed that infant head circumference ( $p = 0.032$ ), gestational diabetes ( $p = 0.001$ ), and the mother's weight gain pattern ( $p = 0.046$ ) have a significant relationship with food security, as well as the BMI of mothers who have food security. Compared to mothers experiencing food insecurity, the probability of increased pregnancy blood pressure is significantly higher ( $p = 0.001$ ). However, this difference is not statistically significant between the two groups. It should also be noted that with the increase in food insecurity, the likelihood of stillbirth and pregnancy complications increases marginally.

**Conclusion and Discussion:** Based on the results of this study and the significance of food insecurity in pregnant women, it is essential to identify women experiencing food insecurity during their initial pregnancy visit to provide the necessary care and education. We can also take steps to improve the health of these women by providing nutritional support, especially during pregnancy. Due to the lack of control over potential confounding factors, it is not possible to establish a clear relationship between food insecurity during pregnancy and the occurrence of various pregnancy complications. Therefore, further studies are necessary.

**Keywords:** Food security, Gestational diabetes, Mothers, Pregnancy outcomes