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PREVALENCE AND DETERMINANTS OF ANEMIA AMONG AL-QUDS UNIVERSITY STUDENTS

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Abstract

Background: Micronutrient deficiencies are a recognized public health challenge in Palestine, yet specific data regarding anemia among the university student population remain limited. This study aimed to estimate the prevalence of anemia and examine its determinants—including dietary habits, physical activity, and lifestyle factors—among students at Al-Quds University.

Methods: A cross-sectional study was conducted involving 200 undergraduate students aged 18–23 years recruited via convenience sampling. Ethical approval was obtained from the institutional review committee, and informed consent was obtained from all participants. Anemia status was determined through venous blood sampling and complete blood count (CBC) analysis. Participants also completed structured questionnaires assessing demographic characteristics, dietary patterns, and lifestyle behaviors to evaluate potential determinants of anemia. Anemia was defined according to World Health Organization hemoglobin thresholds (<12.0 g/dL for females; <13.0 g/dL for males).

Results: The overall prevalence of anemia was 30% (n = 60). A significant gender disparity was observed ($p < 0.001$), with 39.3% of females affected compared with 2.0% of males. Among anemic females, the mean hemoglobin level was 11.04 g/dL. Chicken consumption was significantly associated with anemia ($p = 0.003$). Vigorous physical activity was associated with significantly lower odds of anemia ($p = 0.006$), whereas former smoking status was associated with higher odds of anemia (OR = 3.12, $p = 0.013$).

Conclusion: Anemia represents a moderate public health concern among this student population and disproportionately affects females. Significant associations with lifestyle factors—particularly physical activity and smoking history—alongside dietary patterns highlight the need for university health promotion programs emphasizing balanced nutrition and active lifestyles.

Keywords: anemia, university students, prevalence, lifestyle factors, Palestine.