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HORMONAL RESPONSES TO GENDERED BEHAVIOR IN PALESTINIAN WOMEN: A CROSS-CULTURAL EXAMINATION OF TESTOSTERONE

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Abstract

Background: Testosterone is a key hormone influencing various biological and behavioral processes in both men and women. In women, it is primarily produced by the ovaries and adrenal glands and plays a critical role in regulating sexual desire, muscle mass, mood, and skin health. Its levels are affected by environmental, social, behavioral, genetic, and health-related factors. Work-related conditions, including stress, competition, and non-traditional gender roles, may also impact hormonal balance. In the Palestinian context, where cultural and social norms strongly shape women's roles in society and the labor market, understanding the relationship between occupational status and testosterone provides insights into potential effects on physical, psychological, and dermatological health.

Objectives: This study aimed to (1) assess the correlation between testosterone levels and assertive behavior in Palestinian women, (2) explore the link between feminist attitudes and personal behavioral traits, and (3) examine whether elevated testosterone is associated with a lower femininity index.

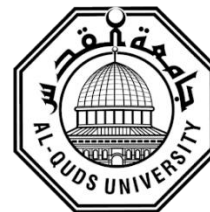
Methods: A quantitative descriptive-comparative design was employed, involving 169 Palestinian women aged 18–45 years. Participants were randomly selected from healthcare, education, office work, freelance, and non-working sectors. Data collection occurred between May 22 and June 8, 2025. Participants were categorized into working and non-working groups to assess testosterone levels and related variables. Blood samples (3 cc) were collected between 8–11 AM in plain and heparin tubes. Serum was separated and analyzed at the Palestinian Red Crescent Hospital, Hebron. Data were analyzed using R software with descriptive statistics, t-tests, ANOVA, Chi-square, and Pearson's correlation. Statistical significance was set at $p < 0.05$.

Results: Findings revealed that employment has a notable influence on testosterone levels, with working women showing significantly higher levels than non-working peers, independent of marital status, job type, or daily work hours. Women who were the primary breadwinners exhibited the highest testosterone levels, suggesting that financial responsibility and social role expectations may amplify hormonal responses. Elevated testosterone was associated with diminished traditional femininity traits, increased acne and oily skin, and a modest positive correlation with feminist attitudes.

Conclusion: These results highlight the complex interplay between occupational roles, hormonal regulation, physical appearance, and socio-cultural attitudes. They suggest that engagement in work,



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particularly as a main family provider, may shape both biological and behavioral outcomes in Palestinian women. This study provides valuable insights into how employment and social responsibilities interact with hormonal and psychosocial dynamics, emphasizing the importance of considering gendered social roles in health research.

Keywords: Testosterone, working women, Gender roles, Femininity ‘Feminist attitudes.