

## Prevalence and Correlates of Anemia in Adolescents in Riyadh City, Kingdom of Saudi Arabia

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**Abstract :** Objective: To determine the prevalence and correlates of anemia in male and female adolescents in Riyadh, Kingdom of Saudi Arabia. Design: A cross-sectional community based study setting: Five primary health care centers in Riyadh. Subjects: We invited 203 male and 292 female adolescents aged 13-18 years for interview, anthropometric measurements and complete blood count. Blood hemoglobin was measured with coulter cellular analysis system using light scatter method. Results: Using the WHO cut-off of Hb < 12gms/dl, 16.7%(34) males and 34%(100) females were suffering from anemia. The mean Hb ( $\pm$ SD) in males and females was 13.5( $\pm$ 1.4) and 12.3( $\pm$ 1.2) mg/dl, respectively. Mean( $\pm$ SD) MCV, MCH, MCHC and RDW in male and female adolescents were 77.8( $\pm$ 6.2) vs76.4( $\pm$ 10.3)fL, 26.1( $\pm$ 2.7) vs25.5( $\pm$ 2.6)pg, 32.7( $\pm$ 2.4) vs32.2( $\pm$ 2.6)g/dL, 13.9( $\pm$ 1.4) vs13.6( $\pm$ 1.3)%, respectively. Multivariate logistic regression revealed that positive family history of iron deficiency anemia(IDA)(OR 4.7,95%CI 1.7-12.2), infrequent intake (OR 3.7,95%CI 1.3-10.0) and never intake of fresh juices(OR 3.5,95%CI 1.4-9.5), 13 to 14 years age (OR 3.1,95%CI 1.2-9.3) were significantly associated with anemia in male adolescents; whereas in females: family history of IDA (OR 3.4, 95%CI 1.5-7.6), being over-weight(OR 3.0,95%CI 1.4-6.1), no intake of fresh juice (OR 2.6,95%CI 1.4-5.1), living in an apartment (OR 2.0, 95%CI 1.1-3.8) or living in small house (OR 2.5, 95%CI 1.2-5.3) were significantly associated with anemia. Conclusion: Anemia is more prevalent among Saudi female adolescents as compared to males. Important factors like positive family history of IDA, overweight, lack of fresh juice intake and low socioeconomic status are significantly associated with anemia in adolescents.

**Keywords :** adolescents, anemia, correlates, obesity

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