Abstract: Introduction: Students health and nutrition are strongly associated with educational achievement and literature confirms link between health and education outcomes. Nutritional stress such as iron deficiency and anemia may induce significant educational problem in academic performance of students. The mechanism by which health and nutrition influence educational achievement is not well established. This study aimed to studied relationship between nutritional status and quality of life of health college students with their academic achievements.

Material and method: 280 second year female students from public health college recruited and were studied after filling written consent form. Demographic, quality of life, depression level (Beck Qs) and food frequency questionnaire (FFQ) were completed and anthropometric measures conducted using body impedance analyzer (Aviss Plus 333). Academic achievement scores were collected form education office of the Kermanshah University of Medical Sciences. Fasting blood sample was collected for haematologic indices (Hb, Hct, MCV, MCH and MCHC) and ferritin measurement. Data was analyzed using X2 and Pierson correlation coefficient test by SPSS software.

Results: The mean age of students was 23+4 year, 40% have been leaving in dormitory and 76% had moderate to low physical activity. Average weight and BMI was 54 + 9.2 kg and 21.1 + 6.7 kg/m2 respectively. 27.3% of students suffered from depression according to the Beck screening questionnaire. 62% of students consumed tea within less than an hour of meal time. The mean ferritin, Hb, Hct and MCV level was 48.6+7.2 Micg/l, 12.9 + 1 g/dl, 40.3 + 18.4 % and 85.1 + 27.4 fl respectively. There was a significant correlation between quality of life and academic achievement (P=0.048). Study showed significant correlation and coefficient between academic achievement and depression scores (p=0.049). Even though, there was no significant correlation between ferritin, Hct and MCV with academic performance, relationship between Hb and academic achievement was positively significant (p=0.043).

Conclusion: Our study showed that student girls with iron deficiencies sufficient to cause anemia are at a disadvantage academic achievement. Suffering from depression and low quality of life may affect academic performance in health college students. Physical and mental health could be considered before public health students candidate appointment and need to be monitored with periodical health status screening to reach maximum academic performance. As public health college graduates mainly appointed in public health service providing centers, their own health status would be considered in high priority to provide better community health in the country.

Academic achievement, iron deficiency, Anemia

Presentation: Oral