Introduction: The aim of this study was to determine the association of depression with general and central obesity in major (Azeri) and minor (Kurd) ethnicities living in Urmia, West Azerbaijan, Iran.

Methods: In this cross-sectional study, 723 participants (427 women and 296 men) aged 20–64 year old, from two ethnic groups (445 Azeri and 278 Kurd) were selected through a multi stage cluster systematic sampling. Depression rate was assessed by “Beck” short questionnaire (validated in Iranians) through interviews. General obesity was defined as BMI≥30 kg/m2 and central obesity as WC≥ 95 cm (based on Iranian cut-off).

Results: Frequency of general and central obesity was significantly higher in Azeris as compared to kurd Kurds (150[33.7% vs. 72[25.9%] and 198[44.5%] vs.97[34.9%]; respectively). Higher percent of Kurds had moderate and severe depression in comparison with Azeris (73[17.3%] vs. 86[27.9%]). There was not any significant differences between the two ethnicities in mild depression. After adjusting for confounders, in comparison with those who were not depressed, in Azeris, those with moderate depression had higher chance to be centrally obese (OR=1.92; 95% CI: 1.02-3.59). Inversely, in Kurds, those with moderate depression decreased the chance for be general obesity(OR=0.33; 95% CI:0.13-0.84). There was no significant association between mild and sever depression with the chance of general obesity.

Conclusion: Findings revealed that moderate depression can result the different manifestation of obesity in ethnic groups. This can be due to other unmeasured means that it was related with higher obesity chance in Azeris and lower central obesity chance in Kurds.