Background relation between peer network and adolescent’s weight status has been investigated in Western, and high-income countries, yet little was known in low- and middle-income countries, especially in Vietnam.

Objectives The study investigated how peer network structure indicators were associated with adolescent’s weight status in Vietnam.

Methods The study obtained data of 1049 children who participated in two different surveys in the Young Lives Study in Vietnam. Sociometric indicators (in-degree, out-degree, reciprocity, reciprocal in-degree, reciprocal out-degree) were generated from class-based networks in the school survey conducted from 2011–12 using UCINET program. Anthropometric measurements and other demographic characteristics were collected in another survey from 2013–14. Nutritional status was categorized into Thinness, Normal weight, and Overweight using BMI z-scores in round 3. Gender-network attributes interaction was also evaluated.

Results Reciprocity was associated with overweight in adolescents: model 1 (adjusted gender, wealth, birthweight, network density, gender homophily): RRRov=1.82, 95% CI: 1.10, 3.02, p-value <0.05, model 2 (added BMI z-scores round 3): RRRov=1.90, 95% CI: 0.94, 3.87, p-value <0.1). In-degree and out-degree were not related to either thinness or overweight among adolescents in Vietnam. Interaction analysis showed that teen boys with least reciprocal in-degree were more affected by overweight: RRRov=3.60, 95% CI: 1.09, 11.89, p-value <0.05.

Conclusion Reciprocity in peer relationships has a salient role in adolescents’ social life in Vietnam. Teen boys with low level of reciprocal incoming friendships were more affected by overweight. This is the first study to examine the link between peer network and adolescent nutritional status in Vietnam. Future work has many potentials to explore the association at different stages of child development.