Introduction: The rising prevalence of chronic non-communicable diseases is associated with a small group of modifiable lifestyle-related risk factors. These behaviors tend to compose clusters that should be identified to support the development of preventive actions.

Objective: To investigate the clustering of risk behaviors for chronic non-communicable diseases among Brazilian adolescents.

Methods: Cross-sectional study that analyzed 107,823 adolescents from the National Adolescent School-based Health Survey (Pesquisa Nacional de Saúde do Escolar – PeNSE) 2012. Clustering of risk behaviors was identified using the ratio between the observed and expected percentages of each combination of unhealthy behaviors (smoking, alcohol intake, low fruits and vegetables intake, and physical inactivity). Observed/expected ratios (O/E) higher than 1 were indicative of clustering.

Results: We identified seven clusters: the presence of all behaviors (O/E prevalence=3.11), the absence of all behaviors (O/E prevalence=1.59), smoking and alcohol intake (O/E prevalence=4.94), alcohol intake and low fruits and vegetables intake (O/E prevalence=3.50), physical inactivity, smoking and alcohol intake (O/E prevalence=2.25), smoking, physical inactivity and low fruits and vegetables intake (O/E prevalence=1.08), and alcohol intake only (O/E prevalence=1.42).

Conclusion: We observed that lifestyle-related risk factors tend to cluster in adolescents in Brazil. This result may be important to the development of preventive actions focused on this age group.