BACKGROUND

- Whether Metabolic syndrome (MetS) components interact with regard to diabetes mellitus or cardiovascular disease is controversial.1,2
- Aim: Assessment of interactions of metabolic syndrome components with regard to diabetes in adolescents.

METHODS

- 2013-2014 population-wide school-based survey of 37,815 Brazilian adolescents aged 12 to 17 years from whom blood samples were collected.3,4
- MetS components (International Diabetes Federation):5 see table 1;
- Diabetes: self-reported diabetes or medications (pills), glucose≥126mg/dL or HbA1C≥6.5%. Exclusion: insulin use;
- 6 possible joint associations of three or more components. The glucose component was excluded;
- We estimated unadjusted and sex-, age-, body mass index (BMI)- and socioeconomic status-adjusted prevalence ratios (PR) using the Poisson regression model.
- Approach: Assessment of homogeneity of associations and comparison between observed and expected Joint associations.

RESULTS

- Median age: 15 years. Less than 3% of adolescents met the MetS criteria, 4% had diabetes and the majority was diagnosed by self-reported diabetes (table 1).
- PRs of high TG in the presence vs absence of low HDL (4.53 vs 1.23), 6 possible joint associations of three or more components. The glucose component was excluded;
- We estimated unadjusted and sex-, age-, body mass index (BMI)- and socioeconomic status-adjusted prevalence ratios (PR) using the Poisson regression model.
- Approach: Assessment of homogeneity of associations and comparison between observed and expected Joint associations.

REFERENCES


CONCLUSIONS

- Although interaction was not present in all possible combinations, high TG and low HDL or elevated interacted with regard to the prevalence of type 2 diabetes mellitus.