Background
In Brazil, cigarettes are sold in supermarkets, convenience stores, gas stations, bars, coffee shops and bakeries. Cigarettes are displayed in the same location as candy, chocolate, gum and other products that children buy. This research assesses the association between noticing cigarette packages displayed at the point of sale (POS) and smoking susceptibility among Brazilian adolescents.

Methods
A cross-sectional study was conducted in 2014 in the capital cities of the five Brazilian regions: Manaus, Salvador, Brasilia, São Paulo and Curitiba. Public school students, ages 14 to 17 from 146 schools, were invited to complete an anonymous questionnaire. A total of 12,580 students completed the questionnaire and 11,086 students were eligible respondents (1,494 respondents were ineligible because they were more than 17 years old). The questionnaire defined susceptibility to smoking as the absence of a firm decision not to smoke.

Results
Smoking Prevalence
- 69 percent (7,642) were never smokers: had never experienced cigarette smoking (not even one or two puffs). Among these, 1,414 students were susceptible to smoking.
- Overall, 31 percent (3,432) of the students were current smokers or had tried smoking. Of these, 10 percent (343) smoked their first whole cigarette before age 10.
- 21 percent (2,334) were experimenters: had tried cigarettes or smoked a whole cigarette, but not in the 30 days before the survey.
- 10 percent (1,098) were smokers: had smoked cigarettes in the last 30 days, regardless of the number of cigarettes or number of days the student smoked.

| Smoking prevalence (percent and confidence interval (CI)) by gender, grade, and age |
|---------------------------------|------------------|------------------|------------------|------------------|
| Category                        | Never Smoker     | Experimenter     | Current Smokers  |
|                                 | Susceptible      | Non-susceptible | %                |                  |
|                                 |                  |                  |                  |                  |
| Gender                          |                  |                  |                  |                  |
| Male                            | 17.9             | 82.1             | 45.3             | 49.4             |
| Female                          | 19.1             | 80.9             | 54.7             | 50.6             |
| Grade                           |                  |                  |                  |                  |
| 10                              | 19.6             | 80.3             | 51.4             | 56.7             |
| 11                              | 17.9             | 82.1             | 31.1             | 31.1             |
| 12                              | 16.1             | 83.9             | 17.5             | 12.3             |
| Age                             |                  |                  |                  |                  |
| 14                              | 17.2             | 82.8             | 3.1              | 6.2              |
| 15                              | 18.9             | 81.1             | 26.8             | 24.6             |
| 16                              | 19.4             | 80.6             | 35.3             | 37.2             |
| 17                              | 17.6             | 82.4             | 34.8             | 32.1             |

- | CI |                  |                  |                  |                  |
- | 16.5–19.3 | 80.7–83.5 | 43.1–47.5 | 46.3–52.5           |
- | 17.5–20.6 | 79.4–82.5 | 52.5–56.8 | 47.5–53.7           |
- | 18.2–21.1 | 78.9–81.7 | 46.9–55.8 | 53.6–59.6           |
- | 15.9–19.9 | 80.1–84.1 | 27.4–34.6 | 28.3–33.9           |
- | 13.6–18.5 | 81.5–86.4 | 13.9–21.2 | 10.4–14.5           |
- | 13.7–20.6 | 79.4–86.2 | 2.2–3.9   | 4.8–7.8             |
- | 16.8–21.1 | 78.9–83.1 | 23.7–29.8 | 22.1–27.3           |
- | 17.5–21.2 | 78.8–82.5 | 32.9–37.7 | 34.3–40.2           |
- | 15.9–19.3 | 80.7–84.1 | 31.6–38.1 | 29.3–34.9           |
Exposure to cigarette packages at POS

Almost all never smokers (99 percent) had been to supermarkets, minimarkets, convenience stores and bakeries—points of sale that sell cigarettes. Among them, 97 percent had noticed cigarette packages at these venues.

Of the never smokers who noticed packs at the POS, 19 percent were susceptible to smoking. There was a statistically significant association between noticing packs at the POS and susceptibility to smoking (OR = 1.56 [1.04-2.35], P value = 0.029).

Bans on displaying cigarettes at the POS

Almost 61 percent of respondents said they are in favor of prohibiting exposed cigarette packs at points of sale. Twelve percent opposed a ban and 27 percent had no opinion.

Conclusion

These findings suggest that exposed cigarette packages at points of sale are associated with smoking susceptibility among Brazilian adolescents.

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