

Abstract

Gender-Specific Dietary Patterns of Energy Drink Consumption among Adolescents from Southern Poland [†]

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Abstract: Energy drinks (EDs) are non-alcoholic beverages with a high content of caffeine and other ingredients. Recently, an increased consumption of EDs has been noted among teenagers and young adults. However, in Poland, there are no specific laws restricting access to EDs among children and adolescents. The aim of this study was to investigate gender-specific dietary patterns in the consumption of EDs among adolescents from southern Poland. A cross-sectional survey including 518 participants (girls, 51%; boys, 49%; mean age, 17.15 ± 0.60 years) was conducted in the years 2014–2015. Using a cluster analysis, k-means were grouped separately for boys and girls by applying the Manhattan distance between two vectors (city blocks). Clusters were distinguished based on two factors: the amount and frequency of ED consumption. Three clusters, each corresponding to different ED consumption patterns, were identified for boys and girls: cluster 1, never; cluster 2, 125 mL EDs less than 1–2 times a week; and cluster 3, 250 mL EDs 5–6 times a week. Overall, almost 90% of participants reported ED consumption (currently and in the past). Energy drinks were consumed at least once a week by 22.1% of boys and 12.8% of girls ($p = 0.0003$). Boys from cluster 3 were more likely to drink isotonic drinks, sweet fizzy drinks, and cola drinks than boys from the other clusters ($p < 0.05$). They were also more likely to use other stimulants, such as cigarettes and alcohol, when consuming EDs when compared with the other groups ($p < 0.05$). A similar pattern was observed for girls, with girls from cluster 3 being more likely to consume sweet beverages and to consume EDs when using alcohol and cigarettes when compared with girls from the remaining clusters ($p < 0.05$). The findings support the results of other authors in terms of the more frequent consumption of EDs by boys. However, in contrast to other studies, the patterns of ED consumption did not differ between boys and girls. In this study, the consumption of EDs was associated with several negative health behaviors. This shows that specific policy-level measures are needed, such as reducing the availability of EDs among adolescents.

Keywords: Energy drinks; adolescents; dietary patterns; eating behavior



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