

# Energy drinks; intakes, awareness and influencing factors toward their consumption amongst young adults in Estonia

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## Background

The global market sale of energy drinks has been growing exponentially since 1990s and is forecasted to achieve €53.4billion by 2020 (Euromonitor International, 2017). Research by Pitsi et al (2013) showed that 22.7% of 18-20 year olds and over 50% of 20-24 year olds were habitual energy drink consumers; an average amount consumed on a typical day was 462ml. However, there is a lack of studies regarding the functional ingredients and adverse health effects of energy drinks in Europe. The most common reasons for energy drink consumption are advertisement, taste and curiosity (Musaiger and Zagzoog, 2014; Alhayas et al., 2016).

The aim of this study was to explore the intake, awareness and influences of energy drink consumption in young adults (18-26-year-old) in Estonia.

## Methods

A cross-sectional analysis utilising self-administered questionnaires on 26 Estonian young adults (aged 18 to 26) with differing educational levels, recruited via opportunistic sampling, designed using validated components (Pitsi et al., 2013; Musaiger and Zagzoog, 2014).

## Results

The study had a high response rate of 100% (n=26). The participants were predominantly female (65%, n=17).

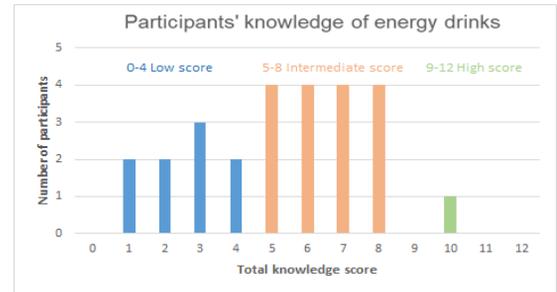
58% (n=15) of respondents reported abstinence from energy drink use. Only 19% (n=5) were considered habitual consumers. The average volume consumed on a typical day was 387ml; there were no outliers present in the data.

*Table 1: The prevalence of energy drinks' consumption of young adults by the highest level of education.*

Consumption of ED in the past year	Highest level of educational attainment % (n)					
	GCSE	A-Levels	Voc GCSE	Voc A-Lev	BSc	MSc
Do not consume	0% (n=0)	75% (n=3)	0% (n=0)	33.3% (n=1)	78% (n=7)	100% (n=4)
A few times a year	50% (n=2)	25% (n=1)	33.3% (n=1)	66.6% (n=2)	0% (n=0)	0% (n=0)
A few times a month	50% (n=2)	0% (n=0)	33.3% (n=1)	0% (n=0)	0% (n=0)	0% (n=0)
Once a week	0% (n=0)	0% (n=0)	33.3% (n=1)	0% (n=0)	22% (n=1)	0% (n=0)
More than twice a week	0% (n=0)	0% (n=0)	0% (n=0)	0% (n=0)	0% (n=0)	0% (n=0)

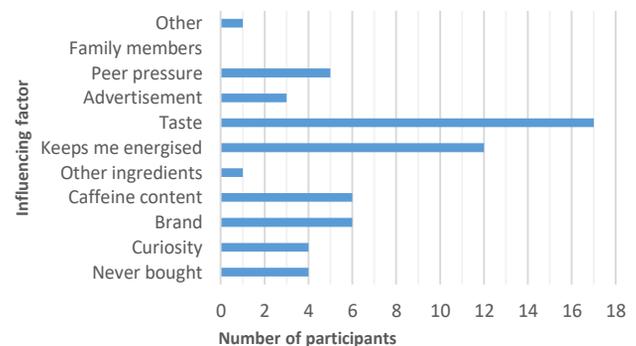
Table 1 shows that there was a statistically positive association between higher education and drinking less energy drinks (Chi-squared test, p=0.036, t=26.181, df=15).

*Graph 1: Participant knowledge score on content and health effects of energy drinks.*



Graph 1 illustrates that 35% (n=9), 62% (n=16) and 3% (n=1) of participants had low, intermediate and high levels of knowledge of energy drinks, respectively.

*Graph 2: Influencing factors on the consumption of energy drinks.*



It could be seen from graph 2 that the most frequently identified influencing factors on energy drink consumption were taste (65%), "keeps me energised" (46%) and caffeine content (23%).

## Discussion and Conclusion

The study suggests a decrease in energy drink consumption among young adults since the last similar research in 2013. This could reflect the successful public health campaign in Estonian schools since 2014 (Tervise Arengu Instituut, 2016). People with higher educational attainment were less likely to consume energy drinks. Higher education, thus higher socioeconomic status could increase the ability to achieve positive health outcomes (Friis et al., 2014).

The majority surveyed seemed reasonably knowledgeable on the content and health effects of energy drinks, yet low awareness in a third of respondents suggests that not all young adults are motivated or engaged with public health messages. Instead, taste was the commonest influencing factor, supporting Drewnowski et al (2013) finding that young adults dislike plain water. A large proportion also considered energy-giving properties as influences to their consumption, which may reflect that these factors have been inadequately addressed in health messages to date.

In conclusion, the present study provides insights into energy drink practices in young adults, however, further research is needed to validate its findings. Health messages should engage young persons in the area of taste as well as knowledge if health outcomes are to be influenced positively.

## References

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