Evidence shows risks associated with energy drinks in children

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Energy drinks are associated with an increased risk of mental health issues among children and young people, including anxiety, stress, depression, and suicidal thoughts, a new study has found.

In their study published in *Public Health*, researchers found energy drink consumption was more common among boys than girls, and was also associated with increased risky behaviors such as substance use, violence, and unsafe sex.

It also links consumption of the drinks with an increased risk of poor academic performance, sleep problems, and unhealthy dietary habits.

Researchers from Fuse, the Center for Translational Research in Public Health, at Newcastle University and Teesside University, looked at data from 57 studies of more than 1.2 million children and young people from over 21 countries.

Experts say it highlights the need for regulatory action to restrict the sale and marketing of energy drinks to children and young people.

Co-author Dr. Shelina Visram, Senior Lecturer in Public Health from Fuse, the Center for Translational Research in Public Health at Newcastle University, said, "We are deeply concerned about the findings that energy drinks can lead to psychological distress and issues with mental health. These are important public health concerns that need to be addressed.

"There has been policy inaction on this area despite government concern and public consultations. It is time that we have action on the fastest growing sector of the soft drink market."

This is an update to a review in 2016. In 2017, the same researchers from Fuse, the Center for Translational Research in Public Health, were the first to publish research exploring in-depth the views of children, as young as 10 years old, on energy drinks.

The academics called on the U.K. government to take action on the sale

of energy drinks to under 16s after finding that they were being sold to young people cheaper than bottled water.

The research revealed that energy drinks were easily available in local shops; sold for as little as 25p ("four for £1" promotions); targeted at children through online adverts, computer games, television and sports sponsorship; and linked to extreme sports, gaming, sexuality, gender, and use of sexualized imagery.

Previous research had also found that up to a third of children in the U.K. consume caffeinated energy drinks on a weekly basis and that young people in the U.K. were the biggest consumers of energy drinks in Europe for their age group.

Professor Amelia Lake was involved in a national campaign, fronted by celebrity chef Jamie Oliver, to restrict the sale of energy drinks to teenagers, and gave evidence to the House of Commons Science and Technology Committee on the effects of energy drinks on young people's mental and physical health.

Many large U.K. supermarkets subsequently agreed to ban the sale of energy drinks to children.

Lead author Professor Lake, Professor of Public Health Nutrition from Fuse, the Center for Translational Research in Public Health at Teesside University, said, "Energy drinks are marketed to children and young people as a way to improve energy and performance, but our findings suggest that they are actually doing more harm than good.

"We have raised concerns about the health impacts of these drinks for the best part of a decade after finding that they were being sold to children as young as 10 years old for as little as 25p. That is cheaper than bottled water.

"The evidence is clear that energy drinks are harmful to the mental and physical health of children and young people as well as their behavior and education. We need to take action now to protect them from these risks."

Regulating energy drinks

A number of countries have attempted to regulate energy drinks, including bans on sales to under 18s in Lithuania and Latvia. The U.K. government ran a consultation on ending the sale of energy drinks to children in England and also proposed this in their 2019 green paper "Advancing our health: Prevention in the 2020s."

While 93% of respondents to the consultation supported restricting sales to under 16s, there has been no further action. In 2022, the devolved government in Wales launched its own consultation to ban the sales of energy drinks to under 16s.

The U.K. Food Standards Agency says that energy drinks are generally drinks with high levels of caffeine. They are usually marketed as giving a mental and physical "boost" by providing more "energy" than regular soft drinks. They are different to "sports drinks" that might be used to replace electrolytes lost during exercise.

Caffeine levels in a can of energy drink can vary between 80 mg (equivalent to two cans of cola or a mug of instant coffee) and 200 mg (equivalent to five cans of cola).

William Roberts, Chief Executive of the Royal Society for Public Health, said, "This important review adds to the growing evidence that energy drinks can be harmful to children and young people's physical and mental health, both in the short and long term.

"That's why we need the U.K. Government to step up and deliver on its 2019 commitment to ban sales of energy drinks to under 16s.

"In doing so, it would not only be following the evidence, but also following the example of countries that have already restricted sales to children, a move supported by the majority of the public."

More than 40 health related organizations have joined the researchers in calling on government to finally restrict the sale and marketing of energy drinks to children and young people.

More information: C. Ajibo et al, Consumption of energy drinks by children and young people: a systematic review examining evidence of physical effects and consumer attitudes, *Public Health* (2024). DOI: 10.1016/j.puhe.2023.08.024

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