



Counseling

Association between reported screening and counseling about energy drinks and energy drink intake among U.S. adolescents[☆]



Gayathri Suresh Kumar^{a,*}, Sohyun Park^b, Stephen Onufrak^b

^a Epidemic Intelligence Service, Office of Surveillance, Epidemiology, and Laboratory Services, Centers for Disease Control and Prevention, Atlanta, GA, USA

^b Division of Nutrition, Physical Activity, and Obesity, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta, GA, USA

ARTICLE INFO

Article history:

Received 9 July 2013

Received in revised form 13 September 2013

Accepted 27 September 2013

Keywords:

Adolescent

Energy drinks

Counseling

Health care providers

Youth

Sugar-sweetened beverage

ABSTRACT

Objective: Possible adverse health consequences of excessive energy drink (ED) consumption have led to recommendations by the American Academy of Pediatrics discouraging ED intake by youth. However, limited information on ED counseling by health care providers exists.

Methods: Data was obtained from the 2011 YouthStyles Survey administered to youth aged 12–17 ($n = 815$). The outcome variable was ED consumption (none vs. ≥ 1 time/week) and exposure variables were screening and counseling about ED (if doctor/nurse asked about ED consumption and if doctor/nurse recommended against ED consumption).

Results: Approximately 8.5% of youth consumed energy drinks weekly, 11.5% reported being asked by their doctor/nurse about frequency of ED consumption, and 11.1% were advised by their doctor/nurse against ED intake. Multivariable logistic regression analysis revealed that the odds for drinking ED ≥ 1 time/week was significantly higher in youth who were asked how often they drank ED by their doctor/nurse (odds ratio = 2.46) vs. those who were not asked.

Conclusion: About 1 in 9 youth reported receiving counseling discouraging ED consumption from their doctor/nurse, and a greater proportion of youth who were screened about ED also reported ED consumption.

Practice implications: Efforts by health care providers to educate youth about potential harms of consuming ED are needed.

Published by Elsevier Ireland Ltd.

1. Introduction

Over the last decade, energy drinks have grown in popularity among youth, with reported consumption prevalence varying from a daily prevalence of 5% to biweekly prevalence of 42% among youth [1–5]. Marketing strategies for energy drinks include statements that these products may boost energy, concentration, and athletic performance [6,7]. These marketed effects are theoretically attributed to the high caffeine content and other additives present in energy drinks. Caffeine content in energy drinks can range anywhere from 50 mg to 505 mg per can/bottle [8]. Of particular concern are that youth often consume energy drinks prior to and during exercise and sporting events as a method

to boost their physical performance [6,9–11]. Yet, the combination of fluid loss from sweating during exercise in addition to the diuretic effect of high caffeine increases risk of dehydration [6,7,12]. Further, energy drinks can boost heart rate and blood pressure, increase restlessness and anxiety, prevent sleep, and increase dental erosion [6,12–15]. Anecdotal reports of more serious consequences, even from as little as drinking two cans of energy drinks (caffeine content unknown), include seizures, cardiac dysrhythmias, dilated cardiomyopathy, rhabdomyolysis, kidney failure and sudden death [1,14–19].

The adverse health effects associated with energy drink consumption have led to recommendations by the American Academy of Pediatrics (AAP) in 2011 to recommend against energy drink intake among youth and to encourage efforts by health care providers to educate parents and children about their potential health risks [6]. To date, the actual extent of counseling by health care providers to youth on the health risks associated with energy drinks is unknown. Given that the AAP recommends health care providers to counsel adolescents on possible health risks associated with energy drinks, it is important to explore the prevalence of counseling on energy drink intake by health care providers and the relationship between counseling and energy

[☆] The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

* Corresponding author at: Division of Nutrition, Physical Activity and Obesity, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Atlanta, GA, USA. Tel.: +1 770 488 5349; fax: +1 770 488 6039.

E-mail addresses: wiz3@cdc.gov, gasuresh@gmail.com (G.S. Kumar).

drink consumption. Therefore, the objectives of this study were 1) to examine the prevalence of energy drink consumption among youth and demographic characteristics associated with intake, 2) to examine prevalence of screening of ED intake and receiving counseling on energy drinks by health care providers and factors associated with screening and counseling and 3) to examine the association between screening/counseling and energy drink consumption.

2. Methods

2.1. Sample and survey administration

This cross-sectional study was based on the YouthStyles Survey which was conducted in the summer of 2011. The YouthStyles Survey is an online survey of U.S. youth between the ages of 12–17 that is designed to assess health beliefs, attitudes, social norms and behaviors surrounding important public health concerns. Participants include the children of adult participants who completed the HealthStyles Survey (administered in three parts—SpringStyles, SummerStyles, and FallStyles) in 2011, which is administered by Knowledge Networks, an online research firm that recruited an online research panel to provide a convenience sample of approximately 50,000 panelists. Panel members are recruited by probability-based sampling through the use of both random-digit dialing and address-based sampling methods in order to reach many respondents as possible.

The YouthStyles survey sample was obtained as detailed below. First, the SpringStyles survey was originally sent to a random sample of 14,598 adult panelists aged 18 and older, of which 8110 participants completed (response rate of 56%). From the adult participants who completed the SpringStyles survey, a random sample of 1614 adult panelists with children ages 12–17 were sent the SummerStyles survey. Children of these 1614 adult panelists were sent the YouthStyles survey, where a total of 840 youth completed the YouthStyles Survey yielding a response rate of 52%. YouthStyles Survey data are weighted based on age, sex, race/ethnicity, household income, number of teenagers aged 12–17 in the family, parent education level, census region, metro status, and

prior Internet access in order to match the U.S. Current Population Survey proportions to create a more nationally representative sample [20]. The analysis was exempt from the Centers for Disease Control and Prevention (CDC) Institutional Review Board process because personal identifiers were not included in the data provided to the CDC.

Among the 840 youth who completed the survey, a total of 25 respondents were excluded because of missing data on energy drink intake ($n = 10$), counseling ($n = 12$), or any of the socio-demographic variables ($n = 3$), yielding a final analytic sample of 815 youth. There were no differences in demographic characteristics between the youth who were included in the study and those who were excluded.

2.2. Energy drink consumption

The outcome of interest was energy drink intake, which was based on the following question: ‘During the past 7 days, how many times did you drink a can or bottle of energy drinks like Red Bull, Monster, NOS, 5-h Energy, or Full Throttle?’ Response options were none, 1–2 times/week, 3–4 times/week, 5–6 times/week, 1 time/day, and ≥ 2 times/day. Two mutually exclusive categories were created: none and ≥ 1 time/week based on the data distribution.

2.3. Screening and counseling about energy drinks

The primary exposure variables was one screening and one counseling question: 1) (screening) ‘Has your doctor or nurse ever asked about how often you drink energy drinks, such as Red Bull or Monster?’ and 2) (counseling) ‘Has your doctor or nurse ever recommended that you *not* drink energy drinks, such as Red Bull or Monster?’ Response options were yes or no.

2.4. Sociodemographic variables

Mutually exclusive categories were created for each covariate. Sociodemographic variables included age (12–13, 14–15, and 16–17 years), sex, race/ethnicity (non-Hispanic white, non-Hispanic black, Hispanic, and other/multi-racial), education level of the

Table 1
Characteristics of respondents and their associations with energy drink intake among U.S. youth ($N = 815$)—YouthStyles Survey, 2011.^a

Characteristic	All % ± SE	Energy drink intake during the past 7 days ^b		P value ^c
		None % ± SE	≥ 1 time/week % ± SE	
Total sample		91.5 ± 1.2	8.5 ± 1.2	
Age				
12–13 y	32.3 ± 2.1	96.0 ± 1.4	4.0 ± 1.4	0.007
14–15 y	33.5 ± 2.3	91.6 ± 1.8	8.4 ± 1.8	
16–17 y	34.2 ± 2.3	87.1 ± 2.7	12.9 ± 2.7	
Sex				
Male	52.9 ± 2.4	89.5 ± 1.9	10.5 ± 1.9	0.06
Female	47.1 ± 2.4	93.8 ± 1.4	6.2 ± 1.4	
Race/ethnicity				
White, non-Hispanic	59.2 ± 2.5	91.1 ± 1.3	8.9 ± 1.3	0.87
Black, non-Hispanic	13.4 ± 2.0	93.2 ± 3.4	6.8 ± 3.4	
Hispanic	19.9 ± 2.2	92.6 ± 3.6	7.4 ± 3.6	
Other, Multiracial	7.5 ± 1.0	88.8 ± 4.3	11.2 ± 4.3	
Parent education level				
\leq High school	20.9 ± 2.0	89.9 ± 3.6	10.1 ± 3.6	0.78
Some college	39.0 ± 2.4	91.6 ± 1.7	8.4 ± 1.7	
College graduate	40.1 ± 2.3	92.3 ± 1.6	7.7 ± 1.6	
Family annual income				
<\$35,000	24.8 ± 2.3	92.8 ± 2.4	7.2 ± 2.4	0.79
\$35,000–\$74,999	32.1 ± 2.2	90.5 ± 2.4	9.5 ± 2.4	
\geq \$75,000	43.1 ± 2.3	91.5 ± 1.6	8.5 ± 1.6	

^a Weighted percentage may not add up to 100% because of rounding.

^b ‘‘During the past 7 days, how many times did you drink a can or bottle of energy drinks like Red Bull, Monster, NOS, 5-h Energy, or Full Throttle?’’

^c Chi-square tests were used to examine differences across categories for each variable, with a P value of <0.05 considered statistically significant.

Download English Version:

<https://daneshyari.com/en/article/3813880>

Download Persian Version:

<https://daneshyari.com/article/3813880>

[Daneshyari.com](https://daneshyari.com)