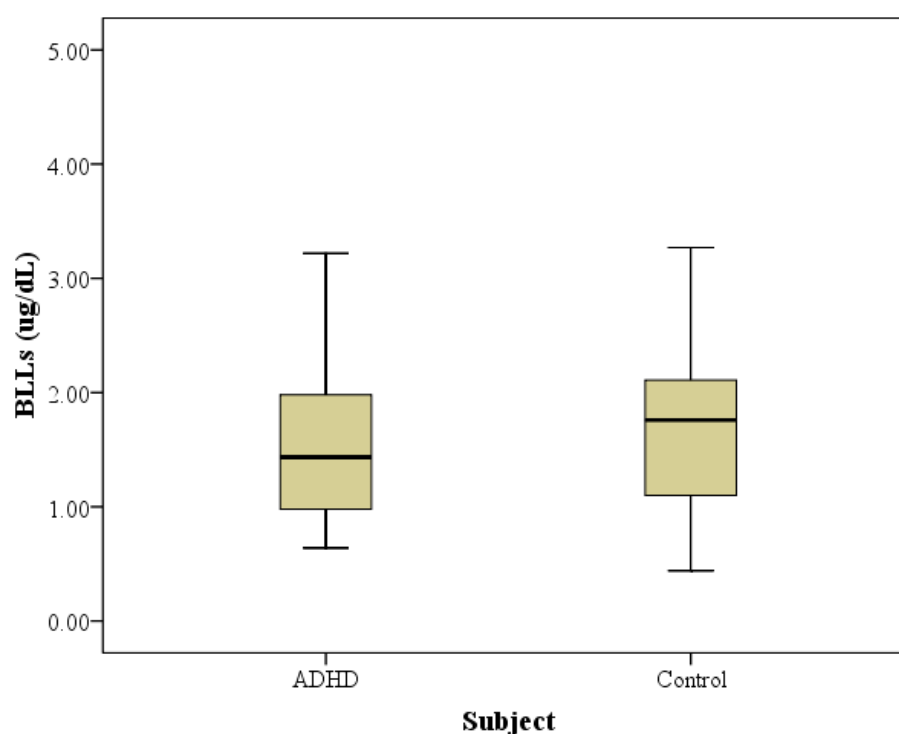# Supplementary Materials: Sugar-Sweetened Beverage Consumption Is Adversely Associated with Childhood Attention Deficit/Hyperactivity Disorder

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**Figure S1.** Boxplot diagram of BLLs for ADHD and normal control participants.

**Table S1.** Relationship between maternal education level and smoking/alcohol consumption during pregnancy.

| Variables | Maternal Education | | *p*-Value |
| --- | --- | --- | --- |
| | High School and Below (*N* = 139) | College or Advanced Training (*N* = 193) | |
| **Smoking during pregnancy (%)** | | | 0.02 * |
| No | 123 (88.5%) | 187 (96.9%) | |
| Yes | 16 (11.5%) | 6 (3.1%) | |
| **Alcohol consumption during pregnancy (%)** | | | 0.06 |
| No | 122 (87.8%) | 181 (93.8%) | |
| Yes | 17 (12.2%) | 12 (6.2%) | |

* $p < 0.05$.

**Table S2.** Polymorphism of dopamine-related genes (DRD4/DAT1) of the study participants (*N* = 207).

| Marker Name | Controls | ADHD |
|---|---|---|
| | *N* = 110 | *N* = 97 |
| **Gene polymorphism—DRD4** | | |
| **rs7395429** | | |
| T | 53 (48.2%) | 60 (61.9%) |
| TC | 46 (41.8%) | 30 (30.9%) |
| C | 11 (10.0%) | 7 (7.2%) |
| **rs3758653** | | |
| T | 44 (40.0%) | 48 (49.5%) |
| TC | 55 (50.0%) | 45 (46.4%) |
| C | 11 (10.0%) | 4 (4.1%) |
| **rs11246228** | | |
| T | 34 (30.9%) | 18 (18.6%) |
| TC | 51 (46.4%) | 50 (51.5%) |
| C | 25 (22.7%) | 29 (29.9%) |
| **rs752306 [1],*** | | |
| G | 67 (60.9%) | 75 (77.3%) |
| GA | 38 (34.5 %) | 21 (21.6%) |
| A | 5 (4.5%) | 1 (1.0%) |
| **Gene polymorphism—DAT1** | | |
| **rs6347** | | |
| G | 1 (0.9%) | 0 (0%) |
| GA | 28 (25.5%) | 19 (19.6%) |
| A | 81 (73.6%) | 78 (80.4%) |
| **rs2975292** | | |
| G | 87 (79.1%) | 70 (72.2%) |
| CG | 22 (20.0%) | 27 (27.8%) |
| C | 1 (0.9%) | 0 (0.0%) |
| **rs37022** | | |
| A | 25 (22.7%) | 18 (18.6%) |
| TA | 55 (50.0%) | 63 (64.9%) |
| T | 30 (27.3%) | 16 (16.5%) |
| **rs40358** | | |
| T | 46 (41.8%) | 37 (38.1%) |
| GT | 48 (43.6%) | 50 (51.5%) |
| G | 16 (14.3%) | 10 (10.3%) |
| **rs10040882** | | |
| T | 1 (0.9%) | 0 (0.0%) |
| TC | 22 (20.0%) | 24 (24.7%) |
| C | 87 (79.1%) | 73 (75.3%) |
| **rs464049** | | |
| T | 16 (14.5%) | 7 (7.2%) |
| TC | 44 (40.0%) | 47 (48.5%) |
| C | 50 (45.5%) | 43 (44.3%) |

[1] The significant difference in gene polymorphisms (rs752306) may have resulted from the small size of participants; **\*** $p < 0.05$.

**Table S3.** Frequently used artificial food colorings (AFCs) and estimated dosage.

| Category | ADI [1] (mg/day/kg b.w.) | Max. Permitted Conc. in Beverage (mg/kg) | 95th Percentile Exposure | | MOS [2] |
|---|---|---|---|---|---|
| | | | Groups | Estimated Max. AFCs Consumed (mg/day/kg b.w.) | |
| Allura Red | 7 | 100 | ADHD | 1.93 | 3.63 |
| | | | Control | 0.93 | 7.53 |
| Tartrazine | 7.5 | 100 | ADHD | 1.93 | 3.89 |
| | | | Control | 0.93 | 8.06 |
| Sunset Yellow | 2.5 | 100 | ADHD | 1.93 | 1.30 |
| | | | Control | 0.93 | 2.69 |

[1] ADI: Acceptable daily intake (mg/kg of body weight, based on a standard child with body weight of 30 kg)—estimated amount that children can ingest daily "without appreciable risk"; [2] Margin of safety (ADI divided by the 95th percentile daily AFC consumption through SSBs).

**Table S4.** Frequently used preservatives and estimated maximum exposure.

| Category | ADI [1] (mg/day/kg b.w.) | Max. Permitted Conc. in Beverage (mg/kg) | 95th Percentile Exposure | | MOS [2] |
|---|---|---|---|---|---|
| | | | Groups | Estimated Max. Preservatives Consumed (mg/day/kg b.w.) | |
| Benzoic acid | 5 | 1000 | ADHD | 62.40 | 0.08 |
| | | | Control | 31.54 | 0.16 |
| Sorbic acid | 25 | 1000 | ADHD | 62.40 | 0.40 |
| | | | Control | 31.54 | 0.79 |

[1] ADI: Acceptable daily intake (mg/kg of body weight, based on a standard child with body weight of 30 kg)—estimated amount that children can ingest daily "without appreciable risk"; [2] MOS: Margin of safety (ADI divided by the 95th percentile daily preservative consumption through SSBs).