

**Table S1:** Characteristics of friends identified by the source children, overall and by categories of friends parental education and friends parental immigrant background

|                                        |      | Overall     | Parental education |                         | Immigrant background |                  |
|----------------------------------------|------|-------------|--------------------|-------------------------|----------------------|------------------|
|                                        | N    |             | High<br>(n = 790)  | Medium-low<br>(n = 918) | Yes<br>(n = 242)     | No<br>(n = 1408) |
|                                        |      | Mean (SD)   |                    |                         |                      |                  |
| Age (years)                            | 1767 | 13.4 (0.8)  | 13.4 (0.8)         | 13.3 (0.9)              | 13.2 (0.8)           | 13.4 (0.8)       |
| BMI z-score                            | 1766 | 0.64 (1.09) | 0.40 (1.05)        | 0.85 (1.08)             | 0.84 (1.02)          | 0.60 (1.10)      |
| Body fat percent z-score               | 1716 | 0.51 (1.07) | 0.24 (1.02)        | 0.73 (1.06)             | 0.72 (0.95)          | 0.47 (1.08)      |
| Impulsivity                            | 1430 | 25.3 (7.5)  | 24.5 (7.1)         | 25.9 (7.8)              | 24.9 (7.8)           | 25.2 (7.4)       |
| HRQoL                                  | 1561 | 38.6 (5.2)  | 38.3 (5.1)         | 38.8 (5.3)              | 39.0 (4.8)           | 38.5 (5.3)       |
| Cognitive and school functioning       | 1605 | 2.56 (0.69) | 2.58 (0.65)        | 2.55 (0.73)             | 2.67 (0.70)          | 2.54 (0.69)      |
| Weight concerns                        | 1563 | 1.42 (1.61) | 1.42 (1.61)        | 1.42 (1.60)             | 1.44 (1.59)          | 1.43 (1.61)      |
| Fast food frequency (times/week)       | 1574 | 3.8 (2.3)   | 3.6 (2.1)          | 4.0 (2.4)               | 3.8 (2.3)            | 3.8 (2.2)        |
| Sugar propensity (%)                   | 1659 | 23.7 (10.7) | 22.1 (9.7)         | 24.9 (11.3)             | 24.2 (11.5)          | 23.6 (10.6)      |
| Fat propensity (%)                     | 1659 | 24.6 (9.1)  | 24.0 (8.4)         | 25.0 (9.7)              | 24.2 (9.1)           | 24.6 (9.2)       |
| Sports club participation (hours/week) | 1577 | 2.6 (3.1)   | 3.2 (3.3)          | 2.1 (2.9)               | 2.3 (3.3)            | 2.7 (3.1)        |
| Screen time (hours/week)               | 1612 | 19.6 (12.1) | 18.4 (11.5)        | 20.5 (12.4)             | 19.6 (12.3)          | 19.5 (12.0)      |
|                                        |      | N (%)       |                    |                         |                      |                  |
| Male sex                               | 1767 | 831 (47)    | 432 (45)           | 442 (48)                | 112 (46)             | 664 (47)         |
| Being bullied <sup>a</sup>             | 1602 | 576 (36)    | 277 (39)           | 280 (34)                | 74 (34)              | 467 (37)         |
| High parental education                | 1708 | 790 (46)    | -                  | -                       | 88 (40)              | 675 (48)         |
| Parental immigrant background          | 1650 | 242 (15)    | 88 (12)            | 150 (17)                | -                    | -                |

<sup>a</sup> any bullying and social rejection vs. none

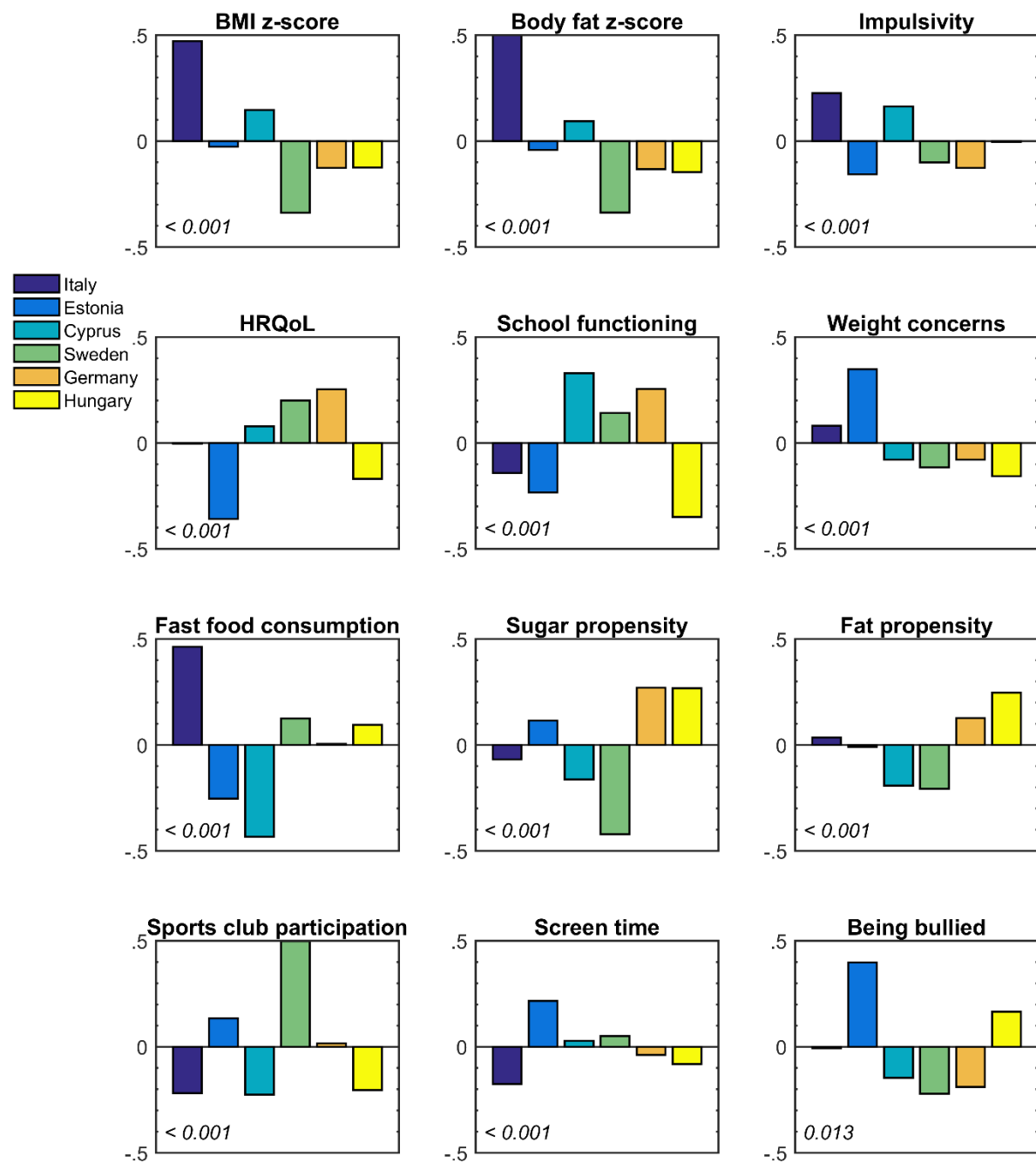
Health-related quality-of-life (HRQoL)

**Table S2:** Prevalence of high parental education, parental immigrant background, and obesity as well as average number of friends, and time spent with friends by survey country.

|         | Total | High parental education | Immigrant background | Obesity | Number of friends | Total time spent with friends <sup>a</sup> |
|---------|-------|-------------------------|----------------------|---------|-------------------|--------------------------------------------|
|         |       | n (%)                   | n (%)                | n (%)   | mean (SD)         | mean (SD)                                  |
| Italy   | 427   | 72 (17)                 | 73 (17)              | 66 (15) | 3.3 (1.9)         | 12 (8)                                     |
| Estonia | 335   | 219 (65)                | 21 (7)               | 19 (6)  | 2.7 (1.6)         | 10 (7)                                     |
| Cyprus  | 317   | 179 (56)                | 62 (22)              | 33 (10) | 1.6 (0.9)         | 6 (4)                                      |
| Sweden  | 134   | 105 (78)                | 13 (10)              | 0 (0)   | 1.9 (1.1)         | 7 (5)                                      |
| Germany | 188   | 76 (40)                 | 60 (32)              | 7 (4)   | 1.7 (0.9)         | 6 (4)                                      |
| Hungary | 139   | 61 (44)                 | 5 (4)                | 8 (6)   | 2.2 (1.6)         | 9 (7)                                      |

<sup>a</sup> for each friend: 1 = little time, 5 = a lot of time, then summed over all friends

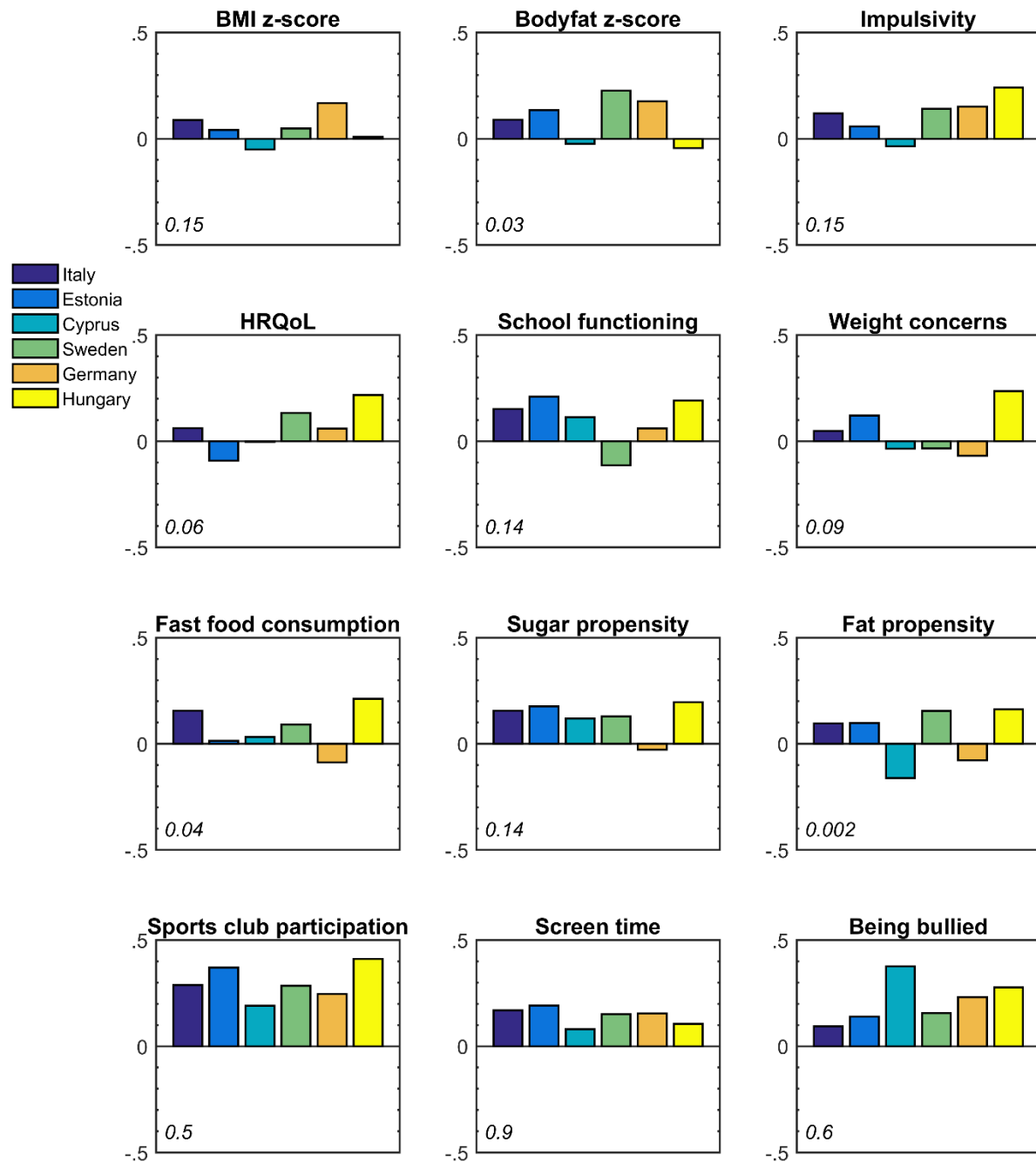
**Figure S1:** Country-specific estimates for source children's characteristics', where positive values indicate higher than average mean values, and negative ones lower than average mean values <sup>a</sup> including the p-value for between-country differences (F-test) <sup>b</sup>.



<sup>a</sup> Standardized estimated beta-coefficients for continuous characteristics, and log OR for being bullied, adjusted for age, sex, parental education.

<sup>b</sup> Numerical values for estimates shown in Figure S1 are given in Table S3.

**Figure S2:** Country-specific associations between source children's and friends' traits and behaviors <sup>a</sup> including the overall p-value for interaction (F-test) <sup>b</sup>.



<sup>a</sup> Standardized estimated beta-coefficients for continuous variables, and log OR for being bullied, adjusted for age, sex, and parental education, and including interactions between country and friends' mean values

<sup>b</sup> Numerical values for estimates shown in Figure S2 are given in Table S3.

**Table S3:** Numerical values for estimates shown in Figures S1 and S2

| Figure S1                 | Estimated beta-coefficients |         |        |        |         |         |
|---------------------------|-----------------------------|---------|--------|--------|---------|---------|
|                           | Italy                       | Estonia | Cyprus | Sweden | Germany | Hungary |
| BMI z-score               | 0.471                       | -0.026  | 0.146  | -0.338 | -0.127  | -0.125  |
| Body fat percent z-score  | 0.562                       | -0.041  | 0.094  | -0.337 | -0.132  | -0.146  |
| Impulsivity               | 0.223                       | -0.157  | 0.163  | -0.101 | -0.127  | -0.004  |
| HRQoL                     | -0.003                      | -0.359  | 0.079  | 0.200  | 0.253   | -0.170  |
| School functioning        | -0.143                      | -0.233  | 0.323  | 0.141  | 0.255   | -0.350  |
| Weight concerns           | 0.080                       | 0.349   | -0.078 | -0.115 | -0.079  | -0.157  |
| Fast food frequency       | 0.463                       | -0.254  | -0.434 | 0.125  | 0.004   | 0.095   |
| Sugar propensity          | -0.068                      | 0.115   | -0.163 | -0.422 | 0.270   | 0.268   |
| Fat propensity            | 0.035                       | -0.009  | -0.193 | -0.207 | 0.127   | 0.247   |
| Sports club participation | -0.219                      | 0.134   | -0.225 | 0.498  | 0.016   | -0.204  |
| Screen time               | -0.176                      | 0.217   | 0.028  | 0.051  | -0.038  | -0.081  |
|                           | Odds ratios                 |         |        |        |         |         |
| Being bullied             | 0.994                       | 1.488   | 0.864  | 0.802  | 0.828   | 1.181   |

| Figure S2                 | Estimated beta-coefficients |         |         |         |         |         |
|---------------------------|-----------------------------|---------|---------|---------|---------|---------|
|                           | Italy                       | Estonia | Cyprus  | Sweden  | Germany | Hungary |
| BMI z-score               | 0.0882                      | 0.0414  | -0.0507 | 0.0484  | 0.168   | 0.0086  |
| Body fat percent z-score  | 0.089                       | 0.135   | -0.025  | 0.226   | 0.176   | -0.044  |
| Impulsivity               | 0.119                       | 0.0572  | -0.0354 | 0.140   | 0.151   | 0.241   |
| HRQoL                     | 0.062                       | -0.092  | -0.0038 | 0.133   | 0.0591  | 0.218   |
| School functioning        | 0.152                       | 0.2094  | 0.1125  | -0.1144 | 0.060   | 0.1917  |
| Weight concerns           | 0.0479                      | 0.121   | -0.0352 | -0.034  | -0.0685 | 0.2359  |
| Fast food frequency       | 0.1555                      | 0.0133  | 0.0316  | 0.0907  | -0.088  | 0.2117  |
| Sugar propensity          | 0.156                       | 0.1765  | 0.1192  | 0.1290  | -0.0269 | 0.1955  |
| Fat propensity            | 0.096                       | 0.0982  | -0.1616 | 0.1547  | -0.0774 | 0.163   |
| Sports club participation | 0.288                       | 0.37    | 0.19    | 0.285   | 0.2464  | 0.411   |
| Screen time               | 0.169                       | 0.192   | 0.0806  | 0.151   | 0.154   | 0.105   |
|                           | Odds ratios                 |         |         |         |         |         |
| Being bullied             | 1.098                       | 1.150   | 1.457   | 1.169   | 1.260   | 1.319   |