Additional file 1 Results of multinomial logit model examining preadolescent factors related to ESPE trajectories using complete data created by multiple imputation analysis

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Males** (n=1075) | 1. Often-rarely / 2. Rarely-Never |   |  | 3. Always-Never /2. Rarely-Never |  | 4. Always / 2. Rarely-Never |  |
| Factors | OR |   | 95% C. I. |   |   | OR |   | 95% C. I. |   |   | OR |   | 95% C. I. |   |   |
| *Individual factors* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Body Mass Index | 1.043  | ( | 0.992  | - | 1.097  | ) |  | 0.979  | ( | 0.925  | - | 1.037  | ) |  | 1.039  | ( | 0.984  | - | 1.096  | ) |  |
| Body dissatisfaction | 0.900  | **(** | 0.834  | **-** | 0.972  | **)** | **\*** | 0.885  | **(** | 0.814  | **-** | 0.962  | **)** | **\*** | 0.832  | **(** | 0.766  | **-** | 0.903  | **)** | **\*** |
| Stress | 0.993  | ( | 0.956  | - | 1.032  | ) |  | 0.953  | **(** | 0.913  | **-** | 0.996  | **)** | \* | 0.961  | **(** | 0.921  | **-** | 1.003  | **)** |  |
| Screen behavior | 0.841  | **(** | 0.733  | **-** | 0.965  | **)** | \* | 1.184  | **(** | 1.021  | **-** | 1.373  | **)** | \* | 0.907  | ( | 0.786  | - | 1.046  | ) |  |
| *Parental Factors* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Parental exercise |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  Regular / unregularly or no exercise | 1.774  | **(** | 1.200  | **-** | 2.622  | **)** | \* | 1.863  | **(** | 1.207  | **-** | 2.875  | **)** | **\*** | 1.847  | **(** | 1.227  | **-** | 2.781  | **)** | **\*** |
| Parental screen behavior | 0.946  | ( | 0.824  | - | 1.086  | ) |   | 1.028  | ( | 0.882  | - | 1.198  | ) |   | 1.064  | ( | 0.920  | - | 1.230  | ) |   |
| **Females** (n=997) | 1. Always-Rarely /2. Rarely-Never |   |  | 3. Always/2. Rarely-Never |  | 4. Rarely/2. Rarely-Never |  |
| Factors | OR |   | 95% C. I. |   |   | OR |   | 95% C. I. |   |   | OR |   | 95% C. I. |   |   |
| *Individual factors* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Body Mass Index | 1.077 | **(** | 1.015 | **-** | 1.141 | **)** | **\*** | 1.179 | **(** | 1.089 | **-** | 1.277 | **)** | **\*** | 1.081 | **(** | 1.014 | **-** | 1.152 | **)** | **\*** |
| Body dissatisfaction | 0.946 | ( | 0.877 | - | 1.021 | ) |  | 0.837 | **(** | 0.751 | **-** | 0.933 | **)** | **\*** | 0.897 | **(** | 0.827 | **-** | 0.972 | **)** | **\*** |
| Stress | 0.988 | ( | 0.952 | - | 1.024 | ) |  | 1.007 | ( | 0.952 | - | 1.064 | ) |  | 1.005 | ( | 0.964 | - | 1.047 | ) |  |
| Screen behavior | 0.714 | **(** | 0.608 | **-** | .838 | **)** | **\*** | 0.937 | ( | 0.751 | - | 1.168 | ) |  | 0.830 | **(** | 0.698 | **-** | 0.986 | **)** | **\*** |
| *Parental Factors* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Parental exercise |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  Regular / unregularly or no exercise | 1.173 | ( | 0.840 | - | 1.637 | ) |  | 1.143 | ( | 0.688 | - | 1.900 | ) |  | 1.073 | ( | 0.746 | - | 1.542 | ) |  |
| Parental screen behavior | 1.013 | ( | 0.894 | - | 1.149 | ) |   | 1.212 | **(** | 1.012 | **-** | 1.450 | **)** | **\***  | 1.006 | ( | 0.876 | - | 1.155 | ) |   |

The multinomial logistic model used “Rarely-Never” class as a reference group. Parental highest education, family monthly income, and parental marital status were controlled in the model.

ESPE: extracurricular sport participation and exercise

\*: p < .05, OR: Odds Ration, C.I.: Confidence Interval