Body image (BI) is subjective picture of one’s own physical appearance established both by self-observation and by noting the reactions of others [1]. Different BI scales used for screening of the Binge Eating symptoms that strongly linked to obesity [2,3].

Objectives

We supposed to get differences in the own body image perception in overweight and lean children [4].

Methods

Body Image questionnaire (BIQ) and Own body satisfaction scale (OBSS) were answered by 47 children with simple obesity (BMI SDS>2.0) (1st group) (f/m=20/27) and 30 children with normal weight (BMI SDS<1.0) (2nd group) (f/m=16/14). Children BMI were standardized according to national reference data. BIQ, OBSS, head, trunk and lower body satisfactions (HSS, TSS and LBSS) were used for estimate the BI construct. Statistical analysis were performed by means of SPSS 21.0 (P<0.05). Nonparametric analysis was performed (SPSS 16.0, p<0.05).

Results

Girls were 15.2 (13.3–16.1) and 15.5 (15.0–16.9) years old in the 1st and 2nd groups, boys – 14.8 (13.0–16.1) and 16.1 (14.7–17.1) accordingly (P>0.05). BMI, waist circumference (WC) were higher in the 1st group irrespective of gender (P=0.0001). (tab. 1).

![Figure 2: Correlations between BMI and Body Image perceptions in girls](http://www.merriam-webster.com/medical/body%20image)

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Obese Children (the 1st group)</th>
<th>Lean children (the 2nd group)</th>
</tr>
</thead>
<tbody>
<tr>
<td>n=77</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BMI kg/m²</td>
<td>31.2 (27.9 – 33.2)</td>
<td>29.7 (22.9 – 34.3)</td>
</tr>
<tr>
<td>BMI SDS</td>
<td>5.5 (3.6 – 6.4)</td>
<td>4.0 (2.9 – 4.8)</td>
</tr>
<tr>
<td>Age, years</td>
<td>14.8 (13.0–16.1)</td>
<td>15.2 (13.3–16.1)</td>
</tr>
<tr>
<td>Waist circumference, cm</td>
<td>94.0 (88.0 – 96.8)</td>
<td>85.0 (81.0 – 98.0)</td>
</tr>
</tbody>
</table>

Table 1. Clinical characteristics in obese and lean children according to gender

The most negative BI perception was in obese girls (22 points (16–25)) compared to lean ones (eight points (3.5–12.8)). P=0.0001, according to BIQ scale (fig 1a). Obese girls had disturbed whole body perception (P=0.002), trunk (P=0.003) (fig 1b) and lower body satisfactions (P=0.002) (fig 1c) according to OBSS, TSS and LBSS. These patterns of relationships were similar in obese boys with accent on changed trunk image perception. (P<0.05) (fig. 1.a,b,c).

Correlations between BMI, BMI SDS and BIQ scores were stronger in girls (r=0.6 and r=0.6, P=0.0001) (fig 2) than in boys (r=0.4, P=0.02 and r=0.4, P=0.03) (fig 3), BMI and BMI SDS positively correlated with OBSS, TSS and LBSS scores (r=0.5, r=0.5, P=0.004, r=0.5, P=0.003 and r=0.5, r=0.5, P=0.01) in obese girls.

Overweight boys had less strong correlations in the same parameters (r=0.4, P<0.05).

![Figure 3: Correlations between BMI and Body Image perceptions in boys](http://www.merriam-webster.com/medical/body%20image)

![Figure 4: Correlation between waist circumference and own body satisfaction scale in girls](http://www.merriam-webster.com/medical/body%20image)

Conclusions

Negative perception of body image with dissatisfaction of whole body, trunk and lower body part increase in line with BMI and waist circumference raise. Body image perception depends on gender and more negative in girls compare to boys.

References


http://www.nutritionj.com/content/11/1/85